

TC-K909ES

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
E Model*



* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.

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| | |
|------------------------------------|--------------------------|
| Model Name Using Similar Mechanism | TC-K222ESA/ TC-K890ES |
| Base Unit Name | TCM-200D11 |

SPECIFICATIONS

| | |
|-------------------|---|
| Recording system | 4-track 2-channel stereo |
| Fast winding time | Approx. 90 sec. (with Sony C-60 cassette) |
| Bias | AC bias |
| Heads | Erasing head × 1 (S&F head) Recording head × 1 (LA head) |
| Motors | Playback head × 1 (LA head) Capstan motor × 1 (direct-drive linear torque BSL motor) Reel motor × 1 (DC motor) Assist (mechanism drive) motor × 1 (DC motor) |
| Wow and flutter | ±0.04% W.Peak (IEC) 0.022% W.RMS (NAB) ±0.065% W.Peak (DIN) |

Signal-to-noise ratio (at peak level and weighted)

| Cassette (Dolby NR off) | Type IV (Sony ES-IV) | Type II (Sony UX-S or UX) | Type I (Sony HF-S) |
|----------------------------|-------------------------|------------------------------|-----------------------|
| | 61 dB | 59 dB | 57 dB |

S/N ratio improvement (approximate values)

With Dolby B NR on: 5 dB at 1 kHz; 10 dB at 5 kHz
With Dolby C NR on: 15 dB at 500 Hz; 20 dB at 1 kHz
With Dolby S NR on: 10 dB at 100 Hz; 24 dB at 1 kHz

| | |
|---------------------|---|
| Harmonic distortion | 0.4% (with Sony HF-S, 160nWb/m, 315Hz, 3rd H.D.) 1.3% (with Sony ES-IV, 250nWb/m, 315Hz, 3rd H.D.) |
|---------------------|---|

Frequency response (Dolby NR off)

| | |
|---------------------------------------|--|
| Type IV cassette (Sony ES-IV) | 15 - 22,000 Hz (± 3 dB, IEC) 15 - 16,000 Hz [± 3 dB, (-4dB recording)] |
| Type II cassette (Sony UX-S or UX) | 15 - 20,000 Hz (± 3 dB, IEC) |
| Type I cassette (Sony HF-S) | 15 - 17,000 Hz (± 3 dB, IEC) |

Inputs

| | | |
|------------------------------|-----------------|-----------|
| Line inputs (phono jacks) | Sensitivity | 0.16 V |
| | Input impedance | 47 k ohms |

—Continued next page—

STEREO CASSETTE DESK
SONY®



Outputs

| | | |
|-----------------------------------|--------------------|---|
| Line outputs (phono jacks) | Rated output level | 0.5 V at a load impedance of 47 k ohms |
| | Load impedance | Over 10 k ohms |
| Headphones (stereo phone jack) | Output level | 0 - 3 mW at a load impedance of 32 ohms |

General

| | |
|--------------------|---|
| Power requirements | 120V AC, 60 Hz (US, Canadian model) 220—230V AC, 50/60Hz (AEP, German model) 120, 220 or 240V AC adjustable, 50/60 Hz (E model) |
| Power consumption | 26W |
| Dimensions | Approx. 470 × 135 × 350 mm (w/h/d) (18 5/8 × 5 3/8 × 13 7/8 inches) including projecting parts and controls |
| Mass | Approx. 8.2 kg (18 lbs 2 oz) |

Supplied accessories

| |
|---|
| Audio connecting cords (2) |
| M3×8 screws (4) |
| Remote commander RM-J701 (1) (E model) |
| Sony SUM-3 (NS) batteries (2) (E model) |
| AC plug adaptor (1) (E model) |

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

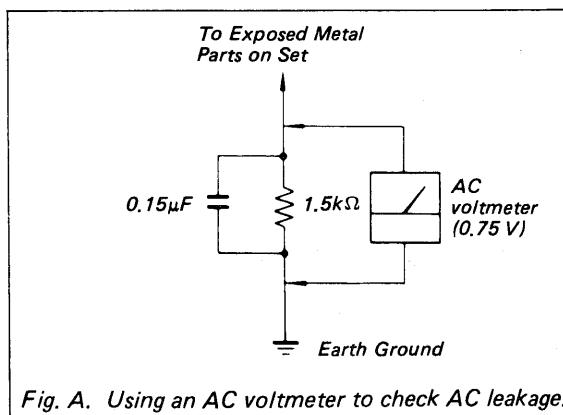
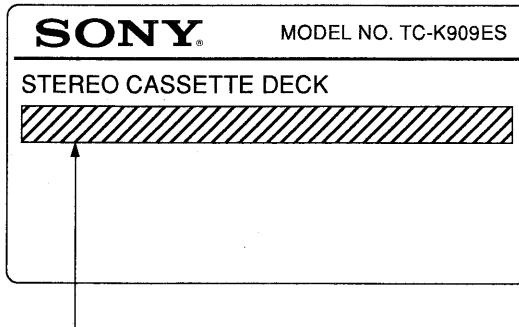


Fig. A. Using an AC voltmeter to check AC leakage.

MODEL IDENTIFICATION



US, Canadian model : AC 120V 60Hz 26W
AEP, German model : AC 220-230V~50/60Hz 26W
E model : AC 120, 220, 240V~50/60Hz 26W

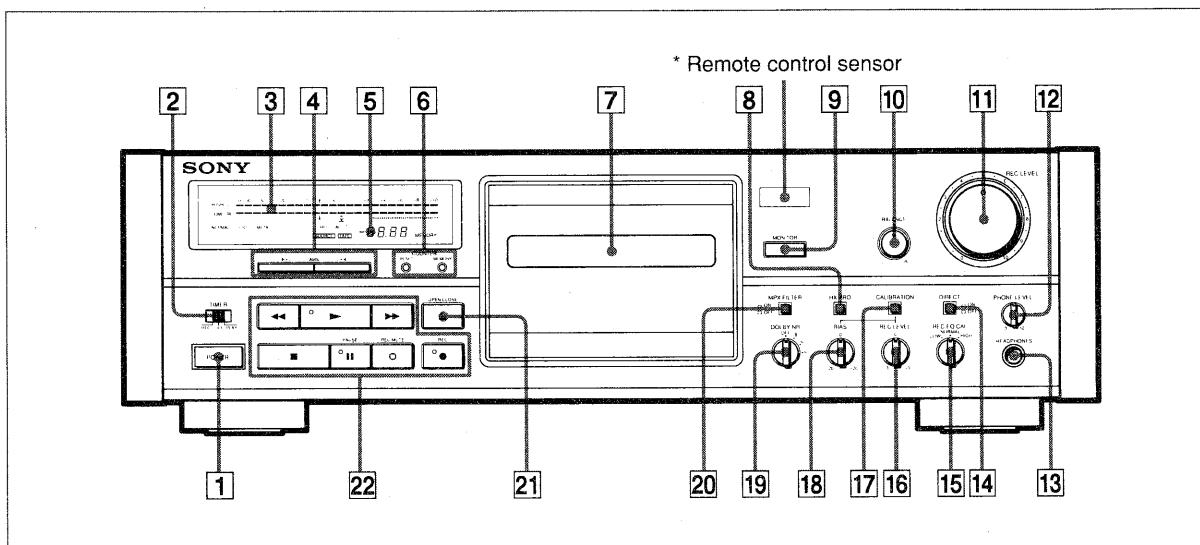
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SECTION 1 GENERAL

Identifying the Parts

Front Panel



For details, refer to the page number(s) indicated in parentheses.

- 1 POWER switch
- 2 TIMER switch
- 3 Peak program meter
- 4 AMS (Automatic Music Sensor) buttons
- 5 Linear counter
- 6 COUNTER buttons
- RESET button
- MEMORY button
- 7 Cassette holder
- 8 HX PRO button
- 9 MONITOR button
- 10 BALANCE control
- 11 REC (recording) LEVEL control
- 12 PHONE (headphones) LEVEL control
- 13 HEADPHONES jack (stereo phone jack)
- 14 DIRECT button
- 15 REC EQ CAL (recording equalizing calibration) switch (LOW, NORMAL, HIGH)
- 16 REC (recording) LEVEL control for calibration

- 17 CALIBRATION button
- 18 BIAS control
- 19 DOLBY NR (noise reduction) switch

- 20 MPX FILTER button
- 21 ▲ OPEN/CLOSE button
- 22 Tape operation buttons and indicators
 - ◀ (rewind) button
 - ▶ (play) button and indicator
 - ▶▶ (fast-forward) button
 - (stop) button
 - PAUSE button and indicator
 - REC MUTE (record muting) button
 - REC (recording) button and indicator

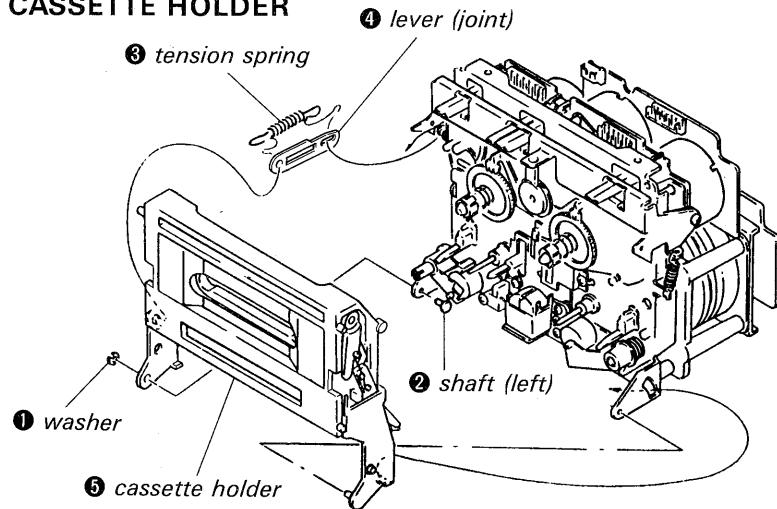
* Remote control sensor

You can remotely control this cassette deck with:
— A remote commander that came with a Sony amplifier or receiver if it has the mark and cassette deck control capability.
— An optional Sony remote commander with the mark and cassette deck control capability.

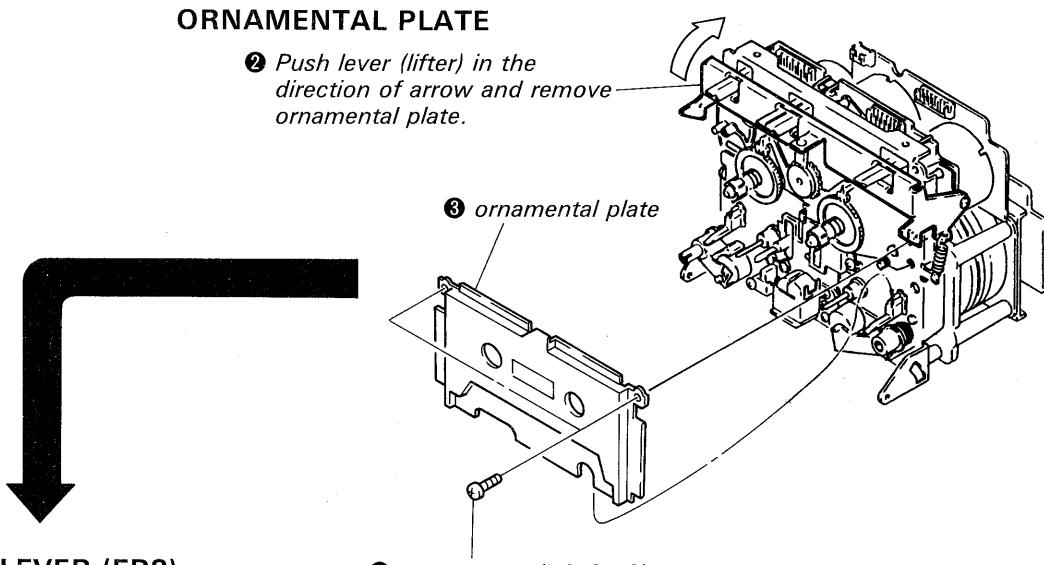
SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

CASSETTE HOLDER

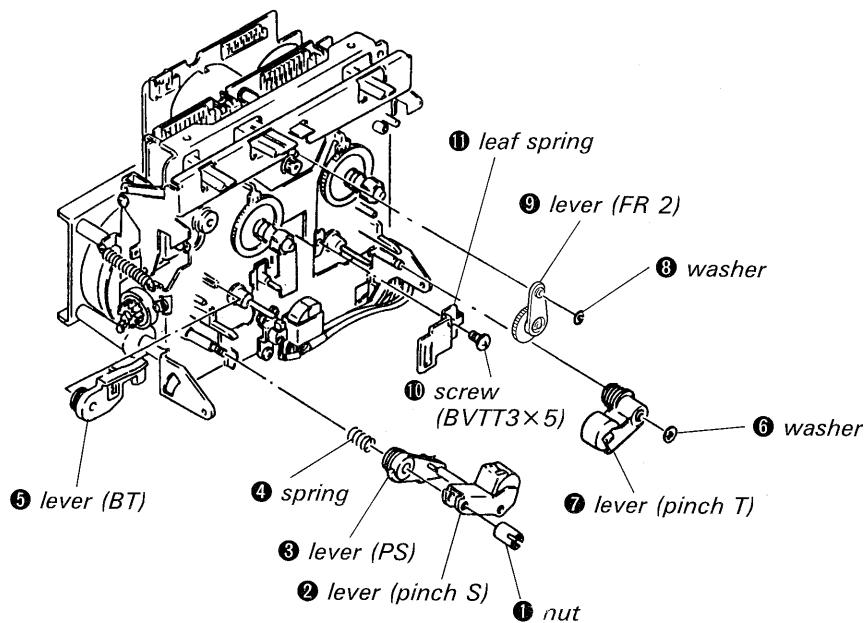


ORNAMENTAL PLATE

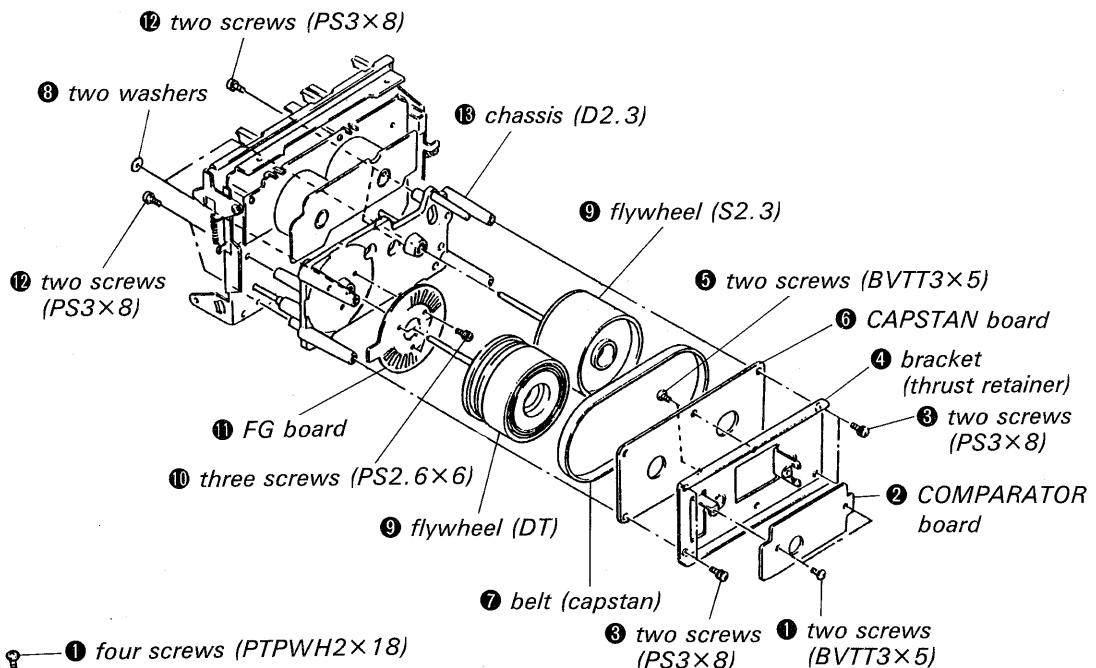


PINCH LEVER/LEVER (FR2)

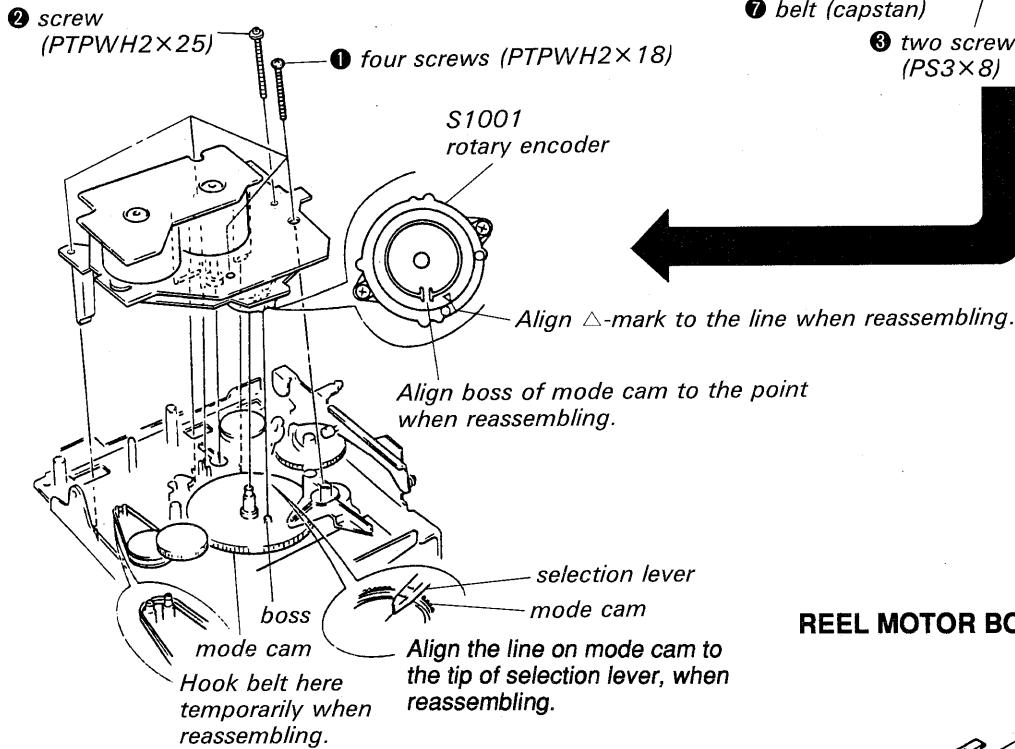
① two screws (B2.6×6)



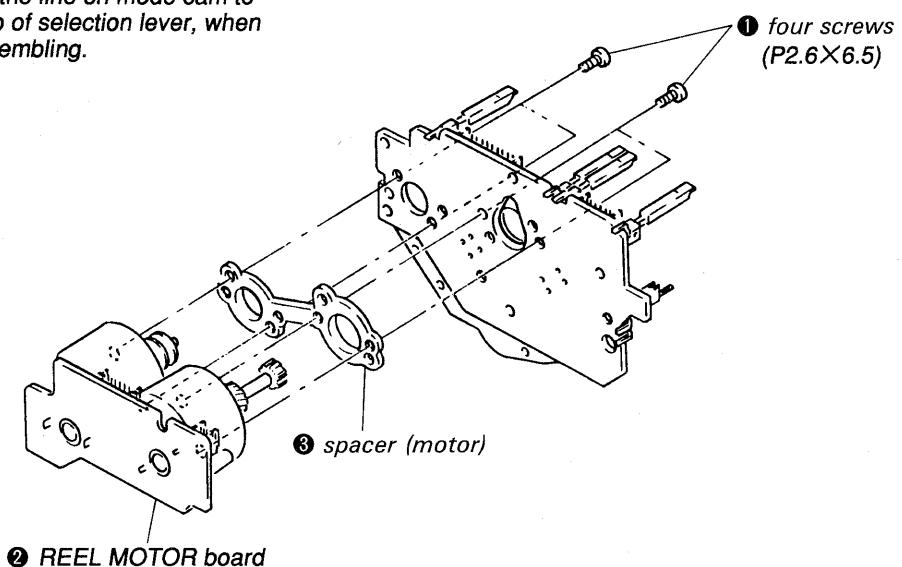
COMPARATOR BOARD/CAPSTAN BOARD/FLYWHEEL/FG BOARD



MD BOARD



REEL MOTOR BOARD



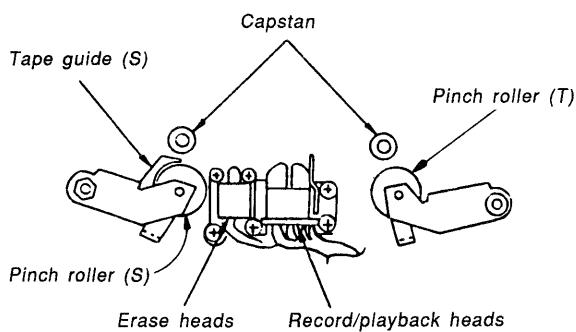
SECTION 3

MECHANICAL ADJUSTMENTS

- Refer to page 9 for Adjustment Location.

PRECAUTIONS

1. Clean the following parts with an alcohol-moistened swab.
(tape sliding surface)
2. Demagnetize the record/playback heads, erase heads and the capstan using the head demagnetizer.
3. Do not use a magnetized screw driver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustment should be performed with the rated power supply voltage unless otherwise noted.



Tape Passing Adjustment

Note: For the following adjustments, use the jig as far as possible. Although the following methods are operable without using the jig, precise adjustment may not be completed, for example no compatibility to other decks is available even if self recording and playback is OK.

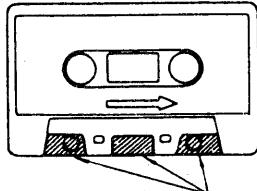
In these adjustments, either the pinch roller guide in the S side or the record/playback head guide is referred to for tape pass. Therefore, do not unnecessarily rotate the adjustment screws including those of the erase heads unless any one is replaced. When 2 or more heads or pinch rollers out of these 2 heads and pinch rollers are to be adjusted or replaced, use the jig for the adjustments or replace one at first and then take complete tape pass and then replace the second one.

Head height adjusting jig : apex

Preparation:

- Mirror cassette CQ009C 8-909-708-01
(Or CQ012C 8-909-708-02)

If it is not available, cut a part of the half of a 120 minute cassette tape and use.

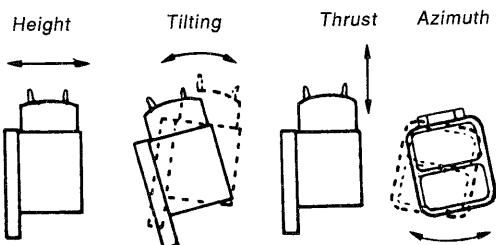


Cut and use.

- Plus screw driver
Medium size Apply to the head adjusting screw.
- Minus screw driver
Large size Apply to the pinch roller adjusting screw in the S side.
- Pen light
- WS-48B (3kHz, 0dB)
- P-4-A100 (10kHz, -10dB)

Definition:

The following view relates to record/playback heads.



For the locations of the adjusting screws, see the view "adjustment location" in the lower right corner of Page 10.

Procedure:

Pinch roller in the S side

Note: It should be adjusted only when the pinch roller in the S side is replaced.

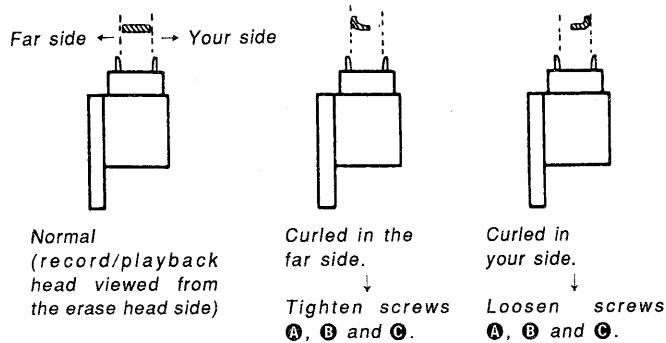
- Mount the mirror cassette and set the equipment to playback state.
- Check that the tape is curled in the pinch roller guide or the guide of the record/playback heads.

If curled, remedy it by rotating the tape curl adjusting screw ⑪. At the time, check that the tape runs near the center part of the erase heads.

Record/playback heads

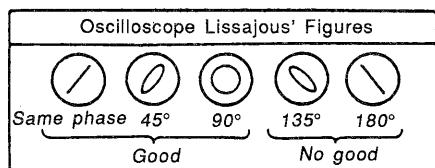
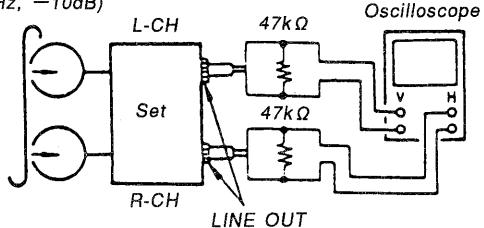
Note: The heads should be adjusted only when the record/playback head is replaced.

- Mount the mirror cassette and set the equipment to playback state.
- (Height adjustment) Check that the tape is curled in the tape guide of the heads. If curled, rotate screws A, B and C in the same angle and move the entire heads parallel. Check the mirror cassette where there is curling and, when curling exists in the lower side (actually in the deep side), tighten all screws slightly. If curled in the upper (your) side, loosen them.



- (Adjustment of tilting) Adjust back tension to 0 still in playback state (loosen the tape by rotating the reel in the S side using a small tip such as a pencil), and check that there is no curling or snaking (up or down) in the guide of the record/playback heads. Snaking of the tape may occur only within the range of a difference in the widths of the tape and the tape guide (it curls when tape slacks more than the range). Therefore, carefully check it because it may often be overlooked.
- If the tape is snaking, rotate screws B and C in the same angle and change the tilting of the heads. Tighten or loosen the screws to remedy up or down snaking, respectively.
- Repeat the adjustment 2 and 3 again and converge the height and tilting to suitable positions.
- (Tentative adjustments of azimuth) Demagnetize and clean the heads and playback WS48B (3kHz, 0dB). Rotate the screw C so that the pointer of the level meter of the set or connected to LINE OUT becomes maximum. If the screw is rotated more than 1/2 turn, repeat the adjustments again from 1.
- (Checking of tape pass) Connect an oscilloscope to LINE OUT, replay P-4-A100 (10kHz, -10dB) to describe Lissajou's figures. At about 20 seconds after beginning playback (the tension in the loop becomes stable), check that the variation of the Lissajou's figures occur within $\pm 90^\circ$ (more preferably within $\pm 45^\circ$). If beyond $\pm 90^\circ$, adjustments of tilting or height will not be complete, so finely adjust the equipment again from 1.

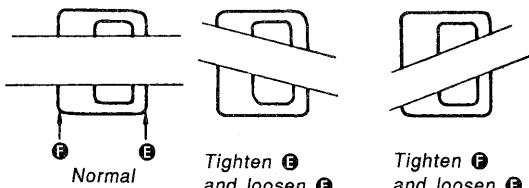
Standard adjustment tape
P-4-A100
(10kHz, -10dB)



Erase heads

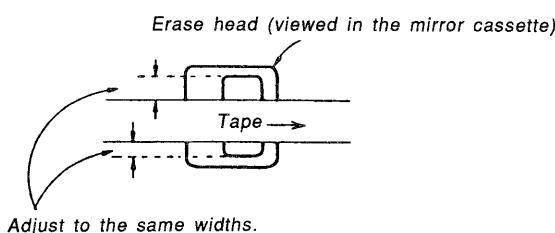
Note: The heads should be adjusted only when the erase head is replaced.

1. Mount the mirror cassette and set the equipment to playback state.
2. (Azimuth adjustments) Adjust screws **E** or **F** so that the tape runs as parallel to the erase heads as possible.



(Erase head viewed in the mirror cassette)

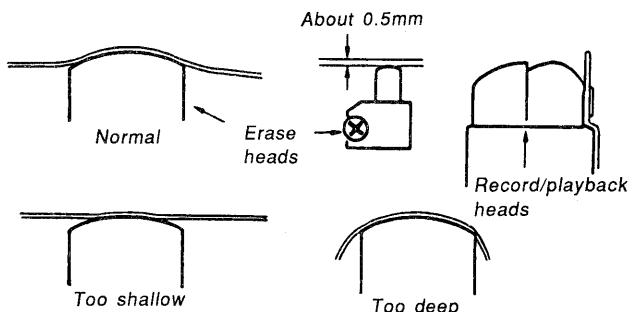
3. (Height adjustment) Rotate screws **D**, **E** and **F** in the same angle so that the widths of erase heads seen in the upper and lower sides of the tape become essentially the same. If the width in the upper or lower side is larger, tighten or loosen the screws, respectively.



4. (Adjustments of tilting) Adjust back tension to 0 still in playback state and check that there is no snaking in the erase heads and pinch roller guide in the S side. If there is, change tilting by rotating the screw **D**. When the tape moves up or down in the mirror tape, tighten or loosen the screw, respectively.

5. Repeat the adjustments again from 2. and converge the height and tilting to more suitable values. And, check that there are no tape curls in the pinch roller guide and the guide of the record/playback heads.

6. (Adjustments of thrust) Slightly loosen the screw **G** and finely adjust it so that the tape smoothly runs over the entire surfaces of the heads by adjusting the thrust of the erase heads to an optimum value relative to the tape.

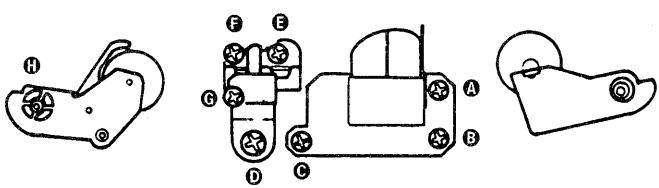
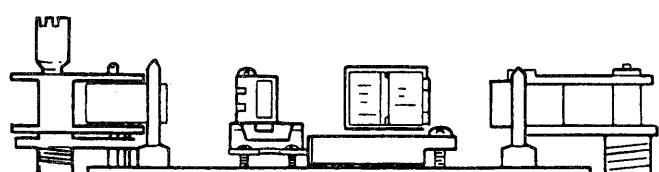


Checking

1. Check that the tape smoothly runs over the entire tape pass without curling or snaking.
2. After the adjustments, apply the locking compound to the screws adjusted (apply the compound to the screw **G** only after the final azimuth adjustments are completed).

Adjustment Location:

The following views relate to those in the mirror cassette (upper) and MD viewed from your side (lower).



Pinch roller in the S side Erase heads Record/playback heads Pinch roller in the T side

SECTION 4 ELECTRICAL ADJUSTMENTS

0dB = 0.775V

1. Perform adjustment in the order listed below. (As a rule, adjust the record system after adjustment of playback system has been completed.)
2. Adjust and measure both channels unless otherwise specified.
3. To perform simultaneous record and playback, select recording mode, and set MONITOR switch to TAPE, then play back immediately the recorded signal to take out from LINE OUT.

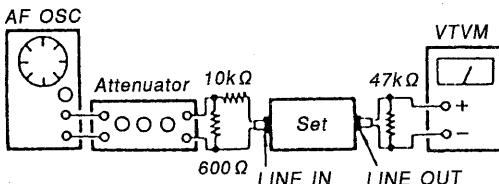
• **Switch position**

| | | |
|-------------|-------|--------------|
| DOLBY NR | ..... | OFF |
| MPX FILTER | ..... | OFF |
| TIMER | ..... | OFF |
| MONITOR | ..... | TAPE |
| HX PRO | ..... | OFF |
| CALIBRATION | ..... | OFF |
| DIRECT | ..... | OFF |
| BIAS | ..... | CENTER CLICK |
| REC LEVEL | ..... | CENTER CLICK |
| BALANCE | ..... | CENTER CLICK |

• **Standard Record**

Adjust the REC LEVEL (RV502) and BALANCE (RV501) controls so that the I/O signal levels specified below can be attained.

Record Mode



Standard Input Level

| Input pin | LINE IN |
|-------------------------|---------------|
| Signal source impedance | 10kΩ |
| Input signal level | 0.25V (-10dB) |

Standard Output Level

| Output pin | LINE OUT |
|---------------------|----------------|
| Load impedance | 47kΩ |
| Output signal level | 0.32V (-7.7dB) |

Test tape

| Type | Signal | Used for |
|----------|--------------|----------------------|
| WS-48B | 3kHz, 0dB | Tape speed/WOW check |
| P-4-A100 | 10kHz, -10dB | Azimuth adjustment |
| P-4-L300 | 315Hz, 0dB | PB level adjustment |

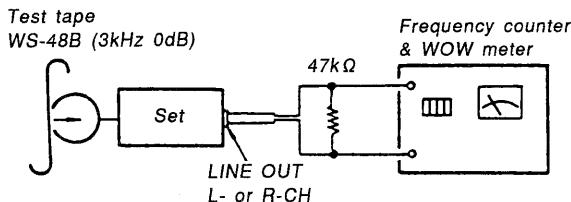
Torque Adjustment

1. Load the torque measuring tape CQ-102C, and play back. Adjust RV801 so that the torque meter reading is $40 \pm 5 \text{ g} \cdot \text{cm}$. ($0.556 \pm 0.069 \text{ oz} \cdot \text{inch}$)
2. After adjustment, measure back tension and FF/REW torque, and make sure that measured data satisfies the specification.

| Torque | Torque meter | Meter reading |
|------------------|--------------|-------------------------------|
| FWD | CA-102C | 35–45g·cm (0.49–0.62 oz·inch) |
| FWD back tension | CA-102C | 7–11g·cm (0.10–0.15 oz·inch) |
| FF/REW | CQ-201B | 65–90g·cm (0.91–1.25 oz·inch) |

Tape Speed/WOW Check

Procedure:



1. Play back the top of test tape to measure its output frequency and WOW value.
2. Invert test tape and perform same measurement, then check for difference between top and end of tape.

Specification:

Tape speed deviation : within 2,990~3,010Hz
Tape speed fluctuation : within 2,990~3,010Hz
WOW (WRMS) : 0.047% or less

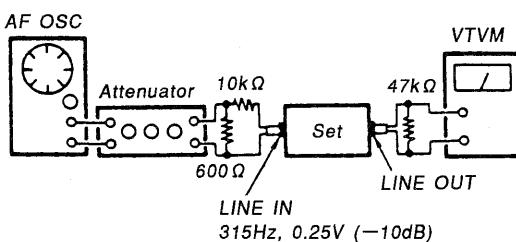
MPX Filter Check

Condition:

DOLBY NR switch : OFF
MPX FILTER switch : OFF

Procedure:

1. Mode : stop



2. Applying 315Hz, 0.25V (-10dB) signal, adjust the REC LEVEL and BALANCE controls so that the LINE OUT level is 0.32V (-7.7dB).
3. Applying 19kHz, 0.25V (-10dB) signal, measure the LINE OUT level.

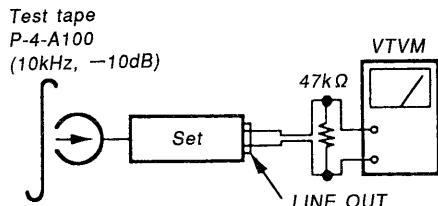
Specification:

DOLBY NR switch: Either B, C or S
MPX FILTER switch: ON, LINE OUT level must be,
315Hz: within 0.28~0.36V (within -8.7~-6.7dB)
19kHz: 9.8mV (-38dB) or less

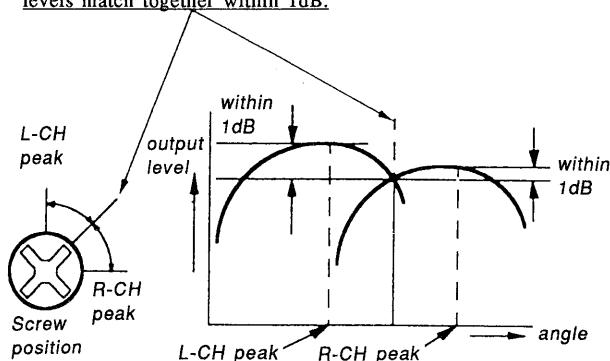
Record/Playback Head Azimuth Adjustment

Procedure:

- Mode : FWD playback



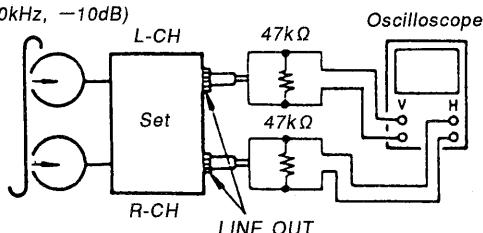
- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



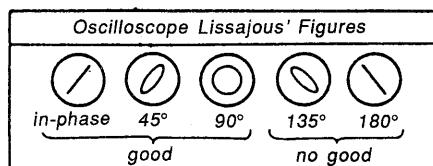
- Phase Check

Mode: playback

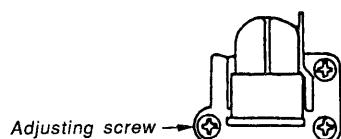
Test tape
P-4-A100
(10kHz, -10dB)



- Confirm that the phase difference between L-CH and R-CH is in-phase to 90°.



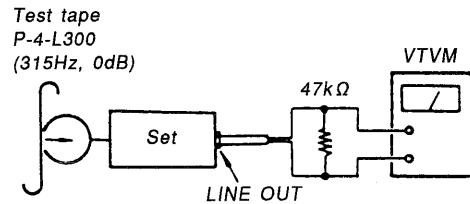
Adjustment Location:



Playback Level Adjustment

Procedure:

- Mode: playback



- Adjust the RV101 (L-CH) and RV201 (R-CH) to satisfy the following specification.

Adjustment Value:

LINE OUT level : 302 — 338mV
(-8.2 — -7.2dB)

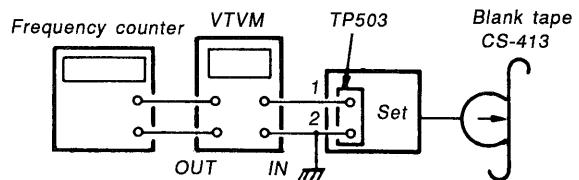
Level difference between channels: within 0.5dB

Confirm that the LINE OUT level does not change when playback and stop are repeated.

Erase Current Adjustment

Procedure:

- Mode: record



- Adjust RV506 so that VTVM reading is 110mV (erase current 110mA).

- At this time, confirm oscillation frequency.

Adjustment Value:

Erase current: 110 ± 0 mA
Oscillation frequency: 160 ± 6 kHz

Bias Consumption Current Adjustment

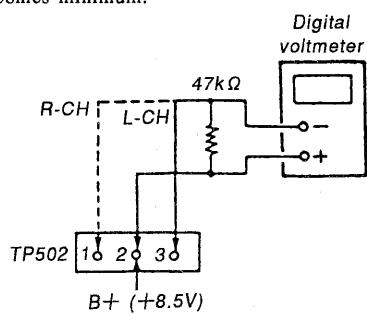
Note: The bias consumption current must be adjusted before adjusting the record bias. Retry record bias adjustment after the bias consumption current is adjusted.

Condition:

HX PRO switch: ON

Procedure:

- Set semi-fixed resistors RV104 (L-CH), RV204 (R-CH) and RV505 for record bias adjustment to mechanical center, and select the recording mode without applying a signal.
- Adjust T101 (L-CH) and T201 (R-CH) so that the digital voltmeter reading becomes minimum.



Specification: 120mV or less

(This value is measured using CS-413 after bias adjustment.)

Bias and Recording level adjustment (HX PRO: ON)

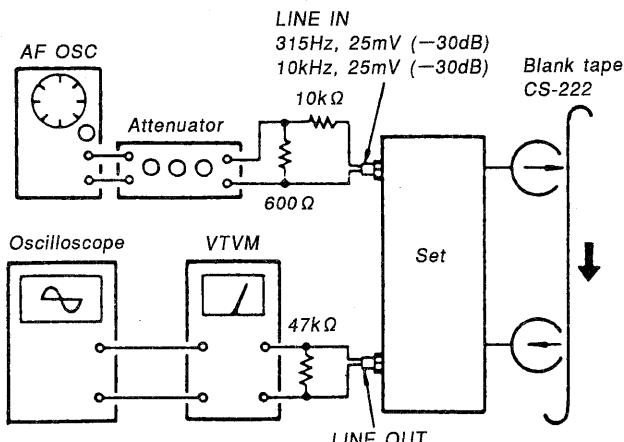
Condition:

REC LEVEL control: Specified recording position (Page 10)

HX PRO switch: ON

Procedure:

- Mode: simultaneous record and playback



- Adjust the following controls so that the minimum output becomes the specified output level.
 - RV104 (L-CH) and RV204 (R-CH) Bias adjustment
 - RV103 (L-CH) and RV203 (R-CH) Recording level adjustment

Adjustment Value:

- Level of 10kHz against 315Hz: $0 \pm 0.3\text{dB}$
- 315Hz level: $30.9 - 33.1\text{mV} (-28.0 - -27.4\text{dB})$

Bias Adjustment (HX PRO: OFF)

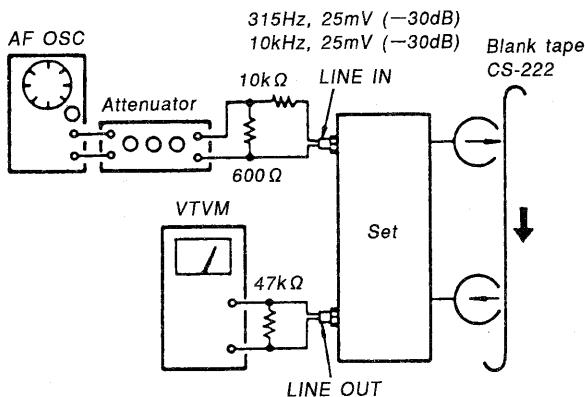
Condition:

REC LEVEL control: Specified recording position (page 10)

HX PRO switch: OFF

Procedure:

- Mode: simultaneous record and playback



- Adjust RV105 (L-CH) and RV205 (R-CH) so that 10kHz playback output is $0 \pm 0.3\text{dB}$ relative to the 315Hz output.

Metal Bias Adjustment

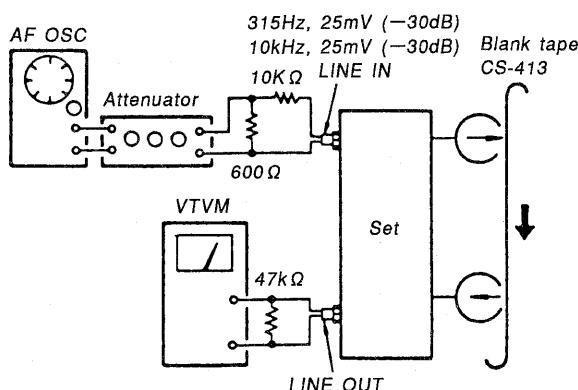
Condition:

REC LEVEL control: Specified recording position (page 10)

HX PRO switch: OFF

Procedure:

- Mode: simultaneous record and playback



- Adjust RV505 so that 10kHz R-CH output is $0 \pm 0.3\text{dB}$ relative to the 315Hz output.

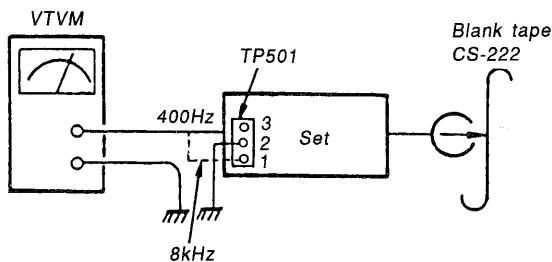
Calibration Adjustment and Level Meter Adjustment

Condition:

CALIBRATION switch: ON

Procedure (oscillation output level adjustment):

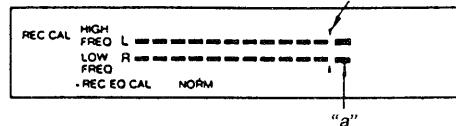
- Mode: record (No signal to LINE IN)



Procedure (level meter adjustment):

- Record mode (No signal to LINE IN)
- Adjust RV202 to higher side, then lower it gradually. Adjust so that the level "a" higher by one point than 0dB of LOW FREQ segment (lower) of CAL level meter turns off.
- Adjust RV102 so that HIGH FREQ segment (upper) up to 0dB position of CAL level meter turns on.

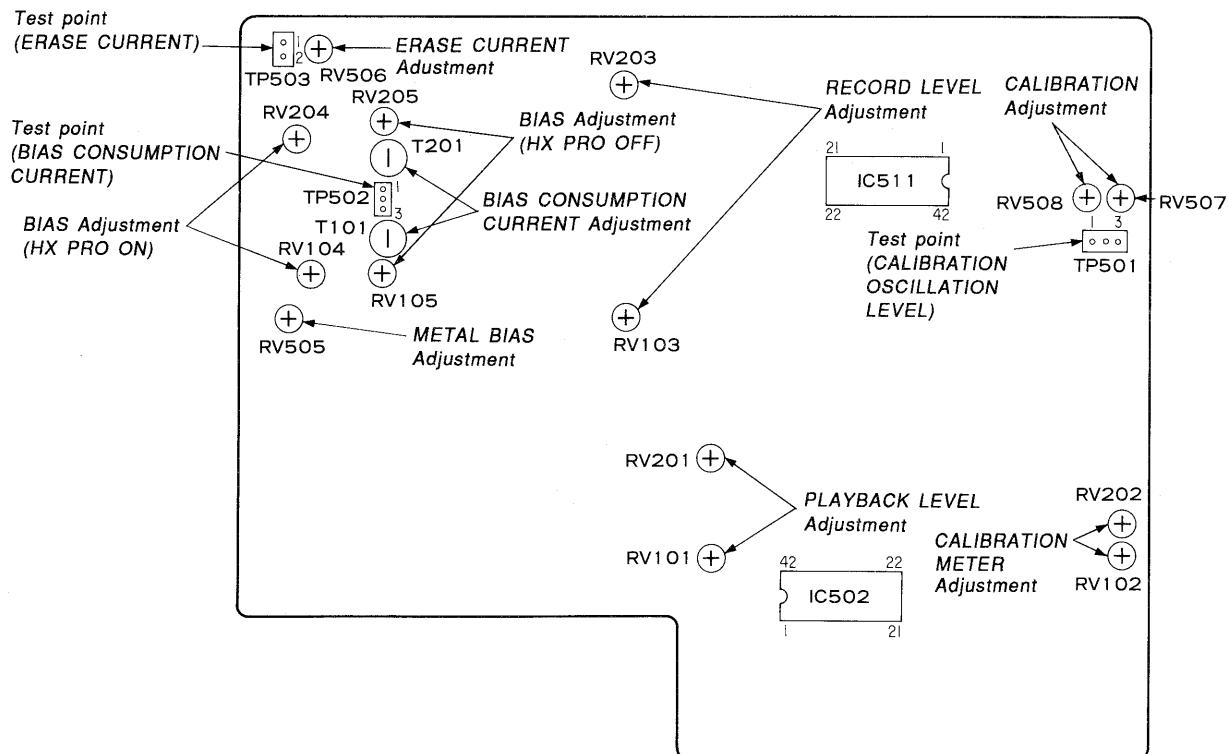
HIGH: Blinking of level "a" higher by 1 point is acceptable.



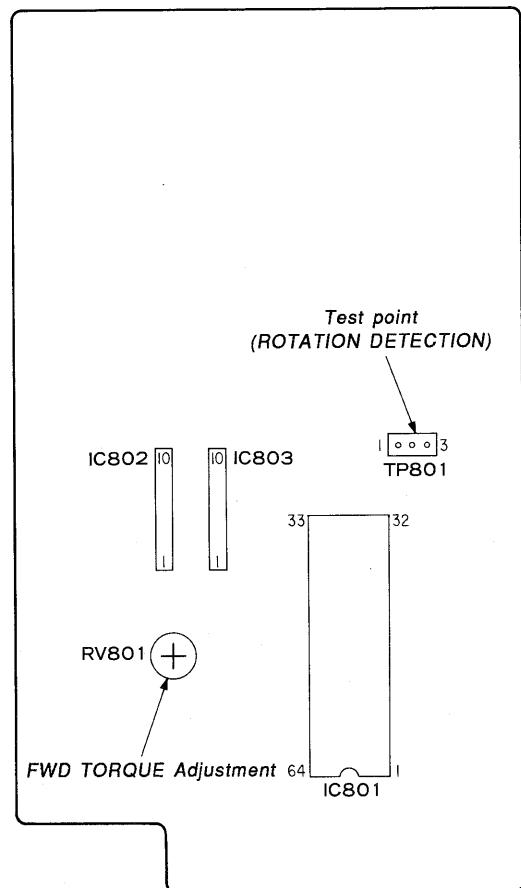
LOW: Blinking of level "a" higher by 1 point is not acceptable.

- Adjust RV508 so that the 400Hz check point level is 2.32 — 2.59V (9.5dB—10.5dB).
- Adjust RV507 so that the 8kHz check point level is 2.32 — 2.59V (9.5dB—10.5dB).

AUDIO (A) BOARD (component side)



SYSTEM CONTROL (A) BOARD (component side)



SECTION 5 DIAGRAMS

IC PIN ASSIGNMENT

IC801 Master Microcomputer (M50964-226SP)

This IC controls, based on input signals from various switches and remote devices, the mechanical deck, audio signal switching for equalizer, muting, etc. and data transfer to the display microcomputer.

| Pin. No. | Pin Name | I/O | Function | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|------------------|-----|--|------|------|---|-------|--|--|-------|-----|--------|------|------|--|-------|------|---|---|---|---|---|---|-----|------|---|---|---|---|---|---|-----|------|---|---|---|---|---|---|-----|------|---|---|---|---|---|---|-----|
| 1 | Vcc | — | Power supply (+5V) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | AVss | — | Power supply (GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Vref | I | Reference voltage input (+5V) to A/D ports | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | DATA | O | Data output (analog) to display microcomputer (IC601) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | PWM | — | Not used | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | ADR0 | O | Data output to display microcomputer (IC601) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | <u>REC</u> | O | Not used (Connected to GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | <u>PAUSE</u> | O | Not used (Connected to GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | <u>PLAY</u> | O | Not used (Connected to GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | AD7 | I | Key switch input (analog) 0V : "▲", 1V : "■", 2V : "◀", 3V : "▶", 4V : "●" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | AD6 | I | Key switch input (analog) 0V : "▶", 1V : " ", 2V : "◀", 3V : "▶", 4V : "○" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | AD5 | I | Key switch input (analog) 0V : "RESET", 1V : "MEMORY", 2V : "DISPLAY MODE" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | TIMER SW | I | Key switch input (analog) 3V : "REC", 4V : "PLAY", 5V : "OFF" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | T-PULSE | I | Mechanism deck take-up reel table sensor pulse input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | S-PULSE | I | Mechanism deck supply reel table sensor pulse input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | COUNT 0 | I | Negative pulse input at counter 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | — | — | Not used | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | RSTOUT | O | Not used (Connected to GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | S-CLOCK | O | Not used (Connected to GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | S-OUT | O | Not used (Connected to GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | S-IN | I | Not used (Pull up) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | SIRCS-L | I | SIRCS signal (remote control) normal phase input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | <u>SIRCS-E</u> | I | SIRCS signal (remote control) inverted phase input Inverted SIRCS-L input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | POW-OUT | O | Not used (Open) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | POWER IN | I | Power down detection input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | <u>INT1</u> | I | Power down detection input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | CNVss | — | Power supply (GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | <u>RESET</u> | I | RESET input | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | XIN | I | Clock input (4MHz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | XOUT | O | Clock output (4MHz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | φ | — | Not used | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | Vss | — | Power supply (GND) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33~36 | <u>PAT3~PAT0</u> | I | Rotary encoder input for mechanism deck head base position detection | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>PAUSE</th> <th>AMS</th> <th>FF/REW</th> <th>STOP</th> <th colspan="2">PLAY</th> <th>EJECT</th> </tr> </thead> <tbody> <tr> <td>PAT3</td> <td>L</td> <td>L</td> <td>L</td> <td>L</td> <td>H</td> <td>H</td> <td>H H</td> </tr> <tr> <td>PAT2</td> <td>L</td> <td>L</td> <td>H</td> <td>H</td> <td>L</td> <td>L</td> <td>H H</td> </tr> <tr> <td>PAT1</td> <td>L</td> <td>H</td> <td>L</td> <td>H</td> <td>L</td> <td>H</td> <td>L H</td> </tr> <tr> <td>PAT0</td> <td>L</td> <td>H</td> <td>H</td> <td>L</td> <td>L</td> <td>L</td> <td>L L</td> </tr> </tbody> </table> | | | | | | | PAUSE | AMS | FF/REW | STOP | PLAY | | EJECT | PAT3 | L | L | L | L | H | H | H H | PAT2 | L | L | H | H | L | L | H H | PAT1 | L | H | L | H | L | H | L H | PAT0 | L | H | H | L | L | L | L L |
| | PAUSE | AMS | FF/REW | STOP | PLAY | | EJECT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAT3 | L | L | L | L | H | H | H H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAT2 | L | L | H | H | L | L | H H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAT1 | L | H | L | H | L | H | L H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PAT0 | L | H | H | L | L | L | L L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | <u>OPEN SW</u> | I | Mechanism deck OPEN SW (S1004) input "L" : Cassette holder is opened | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | <u>CLOSE SW</u> | I | Mechanism deck CLOSE SW (S1003) input "L" : Cassette holder is closed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

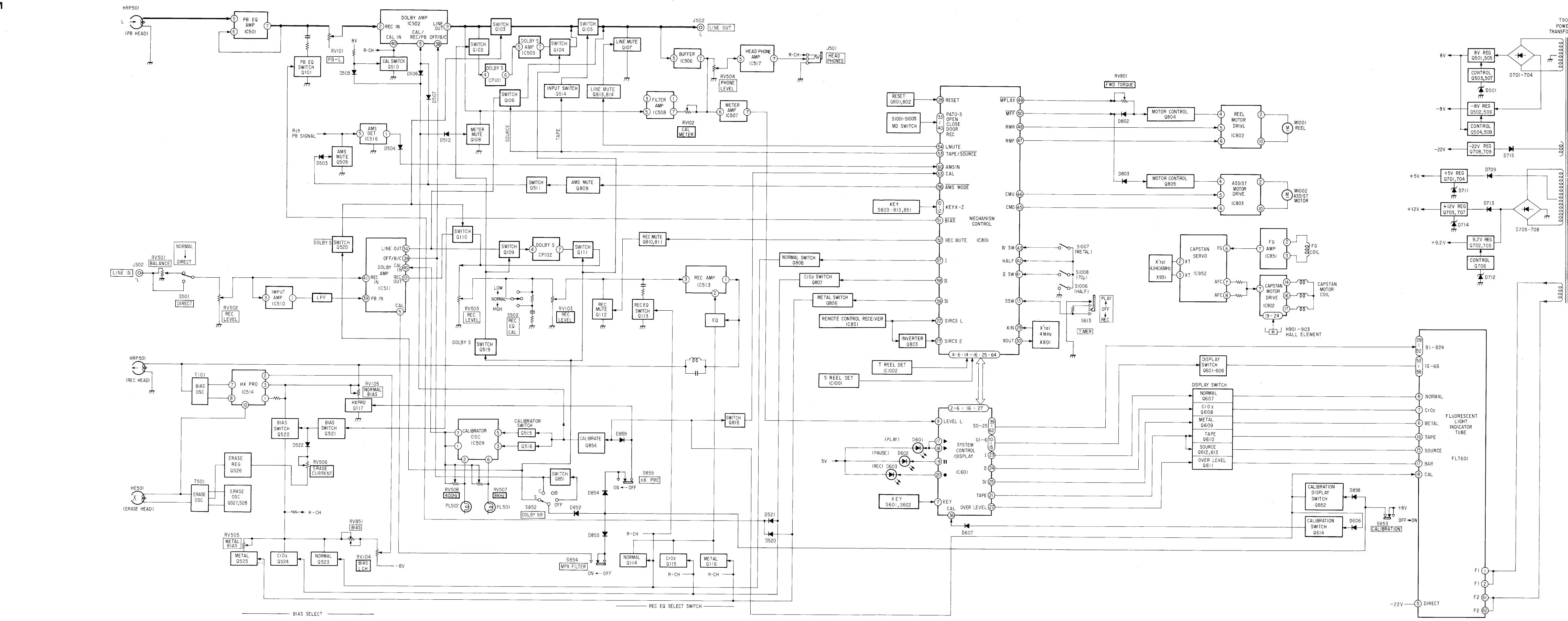
| Pin. No. | Pin Name | I/O | Function | | | | | | | | | | | | | | | | | | | |
|-----------------|------------------|---------------|--|-------|--|--|--|--|------|---------------|--------------|-------|---------------|---|---|---|---|-----------------|---|---|---|---|
| 39 | <u>DOOR SW</u> | I | Mechanism deck DOOR SW (S1002) input "L" : Cassette holder status changes from open to close | | | | | | | | | | | | | | | | | | | |
| 40 | <u>REC SW</u> | I | Mechanism deck REC SW (S1001) input "L" : REC protector is broken | | | | | | | | | | | | | | | | | | | |
| 41 | <u>70μ SW</u> | I | Mechanism deck 70μ SW (S1008) input "H" : 70μ S, "L" : 120μ S (constant when playback EQ) | | | | | | | | | | | | | | | | | | | |
| 42 | <u>HALF SW</u> | I | Mechanism deck HALF SW (S1006) input "L" : Tape is loaded | | | | | | | | | | | | | | | | | | | |
| 43 | <u>METAL SW</u> | I | Mechanism deck METAL SW (S1007) input "H" : Metal tape, "L" : Normal or CrO2 tape | | | | | | | | | | | | | | | | | | | |
| 44 | — | — | Not used | | | | | | | | | | | | | | | | | | | |
| 45 | <u>CAM UP</u> | O | Mechanism deck head base UP output | | | | | | | | | | | | | | | | | | | |
| 46 | <u>CAM DOWN</u> | O | Mechanism deck head base DOWN output | | | | | | | | | | | | | | | | | | | |
| | | | <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td><td>STOP</td><td>DOWN</td><td>UP</td><td>STOP</td></tr> <tr> <td><u>CAM UP</u></td><td>L</td><td>H</td><td>L</td><td>H</td></tr> <tr> <td><u>CAM DOWN</u></td><td>L</td><td>L</td><td>H</td><td>H</td></tr> </table> | | | | | | STOP | DOWN | UP | STOP | <u>CAM UP</u> | L | H | L | H | <u>CAM DOWN</u> | L | L | H | H |
| | STOP | DOWN | UP | STOP | | | | | | | | | | | | | | | | | | |
| <u>CAM UP</u> | L | H | L | H | | | | | | | | | | | | | | | | | | |
| <u>CAM DOWN</u> | L | L | H | H | | | | | | | | | | | | | | | | | | |
| 47 | <u>M-FWD</u> | O | Reel motor forward run | | | | | | | | | | | | | | | | | | | |
| 48 | <u>M-REV</u> | O | Reel motor reverse run | | | | | | | | | | | | | | | | | | | |
| | | | <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td><td>STOP</td><td>FWD/ CLOSE</td><td>REV/ OPEN</td><td>BRAKE</td></tr> <tr> <td><u>M-FWD</u></td><td>L</td><td>L</td><td>H</td><td>H</td></tr> <tr> <td><u>M-REV</u></td><td>L</td><td>H</td><td>L</td><td>H</td></tr> </table> | | | | | | STOP | FWD/ CLOSE | REV/ OPEN | BRAKE | <u>M-FWD</u> | L | L | H | H | <u>M-REV</u> | L | H | L | H |
| | STOP | FWD/ CLOSE | REV/ OPEN | BRAKE | | | | | | | | | | | | | | | | | | |
| <u>M-FWD</u> | L | L | H | H | | | | | | | | | | | | | | | | | | |
| <u>M-REV</u> | L | H | L | H | | | | | | | | | | | | | | | | | | |
| 49 | <u>M-PLAY</u> | O | "L" when reel motor runs at PLAY speed | | | | | | | | | | | | | | | | | | | |
| 50 | <u>M-FAST</u> | O | "L" when reel motor runs at FF/REW speed | | | | | | | | | | | | | | | | | | | |
| 51 | <u>BIAS</u> | O | Bias oscillation control output "L" : Oscillation, "H" : OFF | | | | | | | | | | | | | | | | | | | |
| 52 | REC MUTE | O | REC mute control output "H" : Mute | | | | | | | | | | | | | | | | | | | |
| 53 | MONITER | O | Monitor switch output "H" : TAPE, "L" : SOURCE | | | | | | | | | | | | | | | | | | | |
| 54 | LINE MUTE | O | Line mute control output "H" : Mute | | | | | | | | | | | | | | | | | | | |
| 55 | — | — | Not used (Connected to AMS MODE) | | | | | | | | | | | | | | | | | | | |
| 56 | <u>AMS MODE</u> | O | AMS switch output "L" : AMS | | | | | | | | | | | | | | | | | | | |
| 57 | <u>TYPE I</u> | O | REC equalizer switching output "L" : Normal tape | | | | | | | | | | | | | | | | | | | |
| 58 | <u>TYPE II</u> | O | REC equalizer switching output "L" : CrO2 tape | | | | | | | | | | | | | | | | | | | |
| 59 | <u>TYPE IV</u> | O | REC equalizer switching output "L" : Metal tape | | | | | | | | | | | | | | | | | | | |
| 60 | AMS SIG | I | AMS signal input "L" : No music "H" : Music | | | | | | | | | | | | | | | | | | | |
| 61 | <u>SOURCE SW</u> | I | Not used (Connected to +5V) | | | | | | | | | | | | | | | | | | | |
| 62 | <u>TAPE SW</u> | I | Not used (Connected to +5V) | | | | | | | | | | | | | | | | | | | |
| 63 | <u>CAL SW</u> | I | Calibration SW (S602) input "L" : CAL mode, "H" : Normal mode | | | | | | | | | | | | | | | | | | | |
| 64 | ADDR1 | O | Data output to display microcomputer (IC601) | | | | | | | | | | | | | | | | | | | |

IC601 Display Microcomputer (M50940-313SP)

This IC controls display of 24-segment level meter, counter, etc. based on the instruction from master microcomputer (IC801).

| Pin. No. | Pin Name | I/O | Function |
|----------|--------------------|-----|---|
| 1 | Vref | I | Reference voltage input (+5V) to A/D ports |
| 2 | ϕ L | I | Mechanism deck supply reel table sensor pulse input |
| 3 | ϕ R | I | Mechanism deck take-up reel table sensor pulse input |
| 4 | DATA | I | Data input (analog) from master microcomputer (IC801) |
| 5~6 | ADR1~ADR0 | I | Data input (analog) from master microcomputer (IC801) |
| 7 | KEY | I | Key switch input (analog) 0V : MEMORY 1.6V : RESET 3.1V : DISPLAY |
| 8 | LEVEL L | I | Level meter Lch input (analog) from meter amplifier (IC507) |
| 9 | LEVEL R | I | Level meter Rch input (analog) from meter amplifier (IC507) |
| 10~15 | <u>GRID6~GRID1</u> | O | FL tube grid output |
| 16 | <u>C00</u> | O | Negative pulse output when counter is 00 |
| 17 | <u>PLAY</u> | O | PLAY LED output "L" : ON |
| 18 | <u>PLAY</u> | O | PLAY LED output "L" : ON |
| 19 | <u>PAUSE</u> | O | PAUSE LED output "L" : ON |
| 20 | <u>REC</u> | O | REC LED output "L" : ON |
| 21 | <u>TAPE</u> | O | FL tube segment output (L : TAPE, H : SOURCE display) |
| 22 | <u>OVER LEVEL</u> | O | FL tube segment output ("OVER LEVEL" display) |
| 23 | <u>TYPE I</u> | O | FL tube segment output ("TYPE I" display) |
| 24 | <u>TYPE II</u> | O | FL tube segment output ("TYPE II" display) |
| 25 | <u>TYPE IV</u> | O | FL tube segment output ("TYPE IV" display) |
| 26 | CNVss | - | Power supply (GND) |
| 27 | <u>RESET</u> | I | RESET input |
| 28 | XIN | I | Clock input (4MHz) |
| 29 | XOUT | O | Clock output (4MHz) |
| 30 | XCIN | - | Not used (Normally "L") |
| 31 | XCOUT | - | Not used |
| 32 | Vss | - | Power supply (GND) |
| 33 | ϕ | O | Not used |
| 34 | VER | I | Version switching input (Normally "L") |
| 35 | <u>TEST</u> | I | TEST mode input "L" : Meter all ON |
| 36 | CAL | I | Calibration SW (S602) input "L" : CAL mode, "H" : Normal mode |
| 37 | IN | I | Not used |
| 38 | VP | I | Pull down power supply (-22V) for FL tube segment output |
| 39~62 | S23~S0 | O | FL tube segment output (meter, counterr display) |
| 63 | AVcc | - | Power supply (+5V) |
| 64 | Vcc | - | Power supply (+5V) |

5-1. BLOCK DIAGRAM



● Semiconductor Location

| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|----------|----------|
| D101 | J-7 | IC1 | C-21 | Q211 | B-12 |
| D102 | J-7 | IC2 | G-20 | Q212 | C-12 |
| D103 | G-6 | IC501 | H-13 | Q213 | C-13 |
| D104 | G-7 | IC502 | I-10 | Q214 | C-13 |
| D105 | D-6 | IC503 | I-7 | Q215 | C-13 |
| D106 | E-6 | IC506 | F-8 | Q216 | C-13 |
| D107 | E-6 | IC507 | E-6 | Q217 | C-15 |
| D108 | D-12 | IC508 | J-6 | Q501 | H-15 |
| D109 | E-12 | IC509 | B-7 | Q502 | G-15 |
| D201 | G-7 | IC510 | C-7 | Q503 | I-16 |
| D202 | G-7 | IC511 | C-9 | Q504 | G-16 |
| D203 | G-8 | IC513 | D-14 | Q505 | H-16 |
| D204 | G-7 | IC514 | D-16 | Q506 | G-16 |
| D205 | D-6 | IC516 | F-10 | Q507 | H-16 |
| D206 | E-7 | IC517 | J-3 | Q508 | G-16 |
| D207 | E-7 | | | Q509 | G-12 |
| D208 | C-12 | Q101 | H-12 | Q510 | G-12 |
| D209 | B-12 | Q102 | J-8 | Q511 | F-13 |
| D501 | H-16 | Q103 | I-7 | Q514 | F-8 |
| D503 | F-13 | Q104 | I-7 | Q515 | C-6 |
| D504 | F-9 | Q105 | G-6 | Q516 | C-7 |
| D505 | G-11 | Q106 | G-7 | Q519 | E-10 |
| D506 | G-11 | Q107 | F-7 | Q520 | E-10 |
| D507 | G-11 | Q108 | J-7 | Q521 | D-17 |
| D508 | J-8 | Q109 | E-11 | Q522 | D-17 |
| D509 | J-8 | Q110 | D-12 | Q523 | E-16 |
| D510 | H-8 | Q111 | E-12 | Q524 | E-16 |
| D511 | H-8 | Q112 | E-13 | Q525 | E-16 |
| D512 | F-8 | Q113 | D-13 | Q526 | B-16 |
| D513 | E-8 | Q114 | D-13 | Q527 | B-16 |
| D514 | C-12 | Q115 | D-13 | Q528 | B-15 |

Note:

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : Through hole.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from
(Conductor Side) the pattern face are indicated.

Parts face side: Parts on the parts face side seen from the
(Component Side) parts face are indicated.

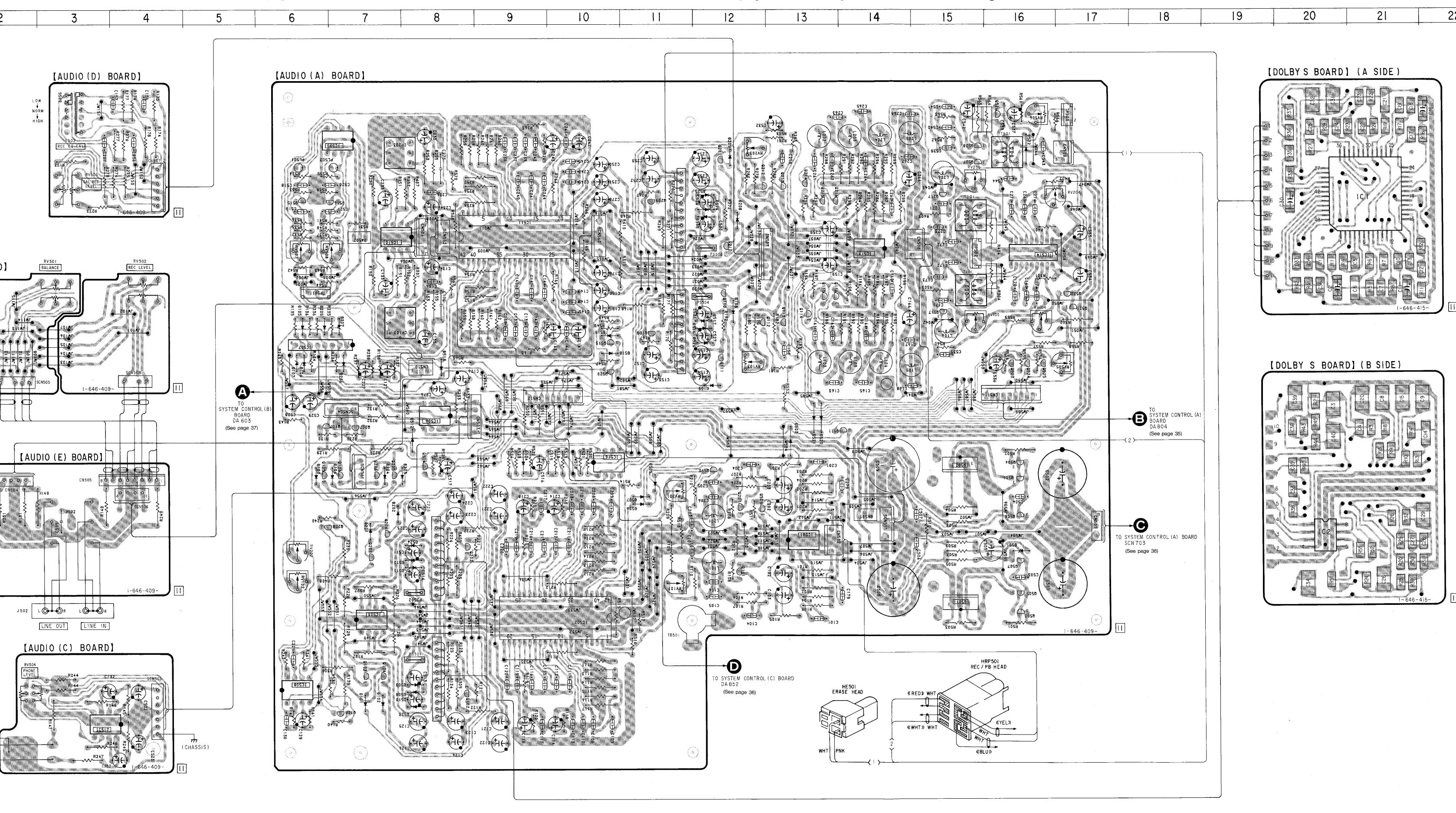
CND: Canadian

G: German

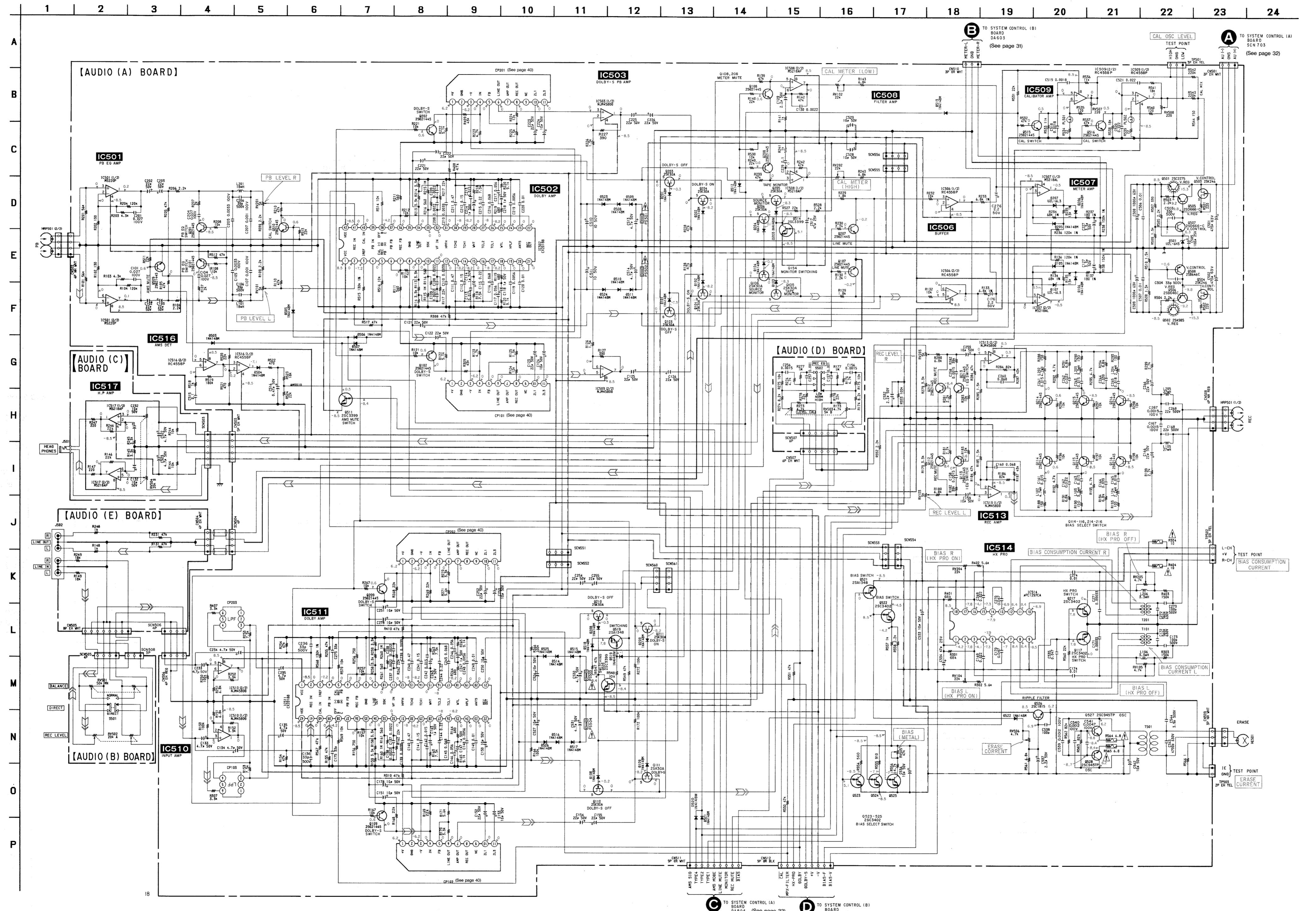
5-2. PRINTED WIRING BOARDS -AUDIO Section-

• See page 37 for Circuit Boards Location and Semiconductor Lead Layouts.

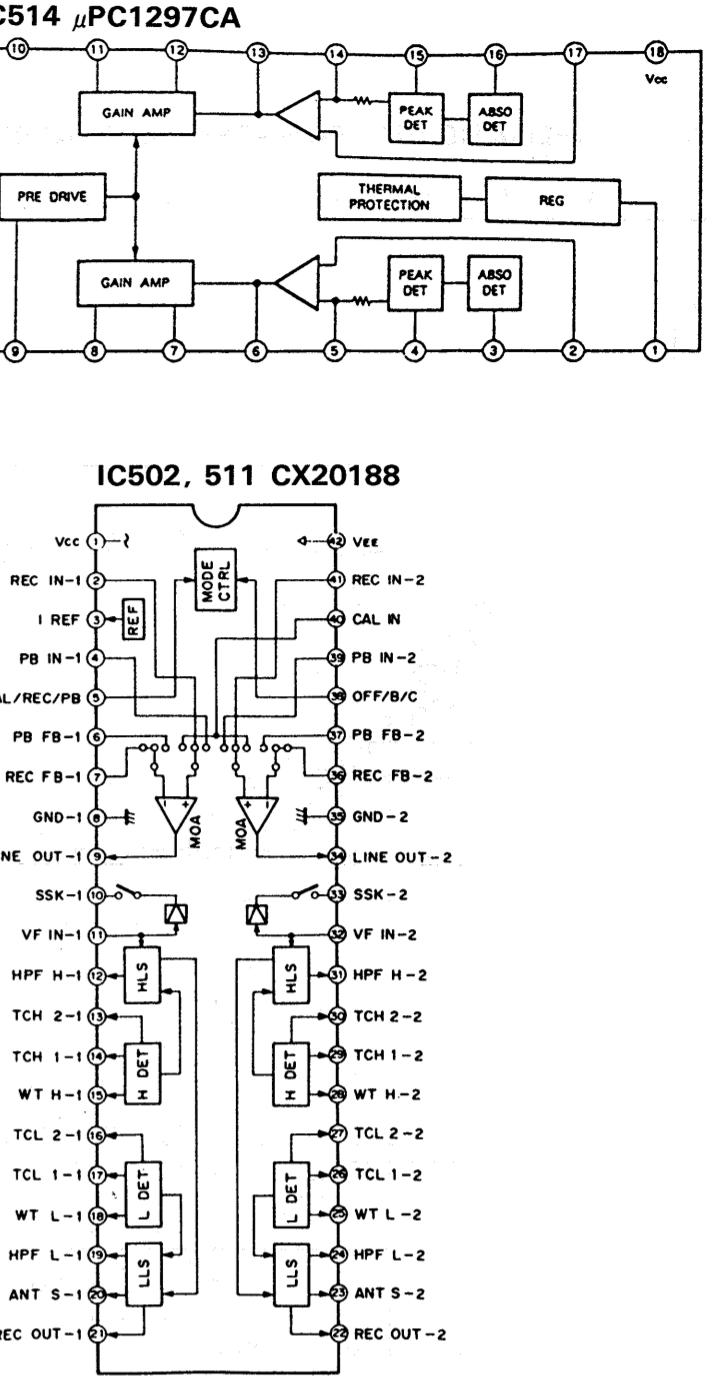
• See page 40 for Dolby S Board Schematic Diagram.



5-3. SCHEMATIC DIAGRAM –AUDIO Section–



C Block Diagrams



| No. | Pin Name | Function |
|-----|-----------------|--|
| 1 | Vcc | Positive power supply |
| 41 | REC IN | REC input |
| 3 | I REF | Reference current input |
| 39 | PB IN | PLAYBACK input |
| 5 | CAL/REC/PB | CALIBRATION/REC/PLAYBACK switching |
| 37 | PB FB | PLAYBACK feedback |
| 36 | REC FB | REC feedback |
| 35 | GND | GND in 2-power mode, Vcc/2 in 1-power mode |
| 34 | LINE OUT | Line out (decode output) |
| 33 | SSK | Spectral skewing switch |
| 32 | VF IN | Encode circuit input |
| 31 | HPF H | HLS high pass filter |
| 30 | TCH 2 | HLS detector time constant 2 |
| 29 | TCH 1 | HLS detector time constant 1 |
| 28 | WT H | HLS weighting |
| 27 | TCL 2 | LLS detector time constant 2 |
| 26 | TCL 1 | LLS detector time constant 1 |
| 25 | WT L | LLS weighting |
| 24 | HPF L | LLS high pass filter |
| 23 | ANT S | Anti-saturation |
| 22 | RED OUT | REC output (encode output) |
| 38 | OFF/B/C | DOLBY NR OFF/B type/C type switching |
| 40 | CAL IN | CALIBRATION input |
| 42 | V _{EE} | Negative power supply in 2-power mode, GND in 1-power mode |

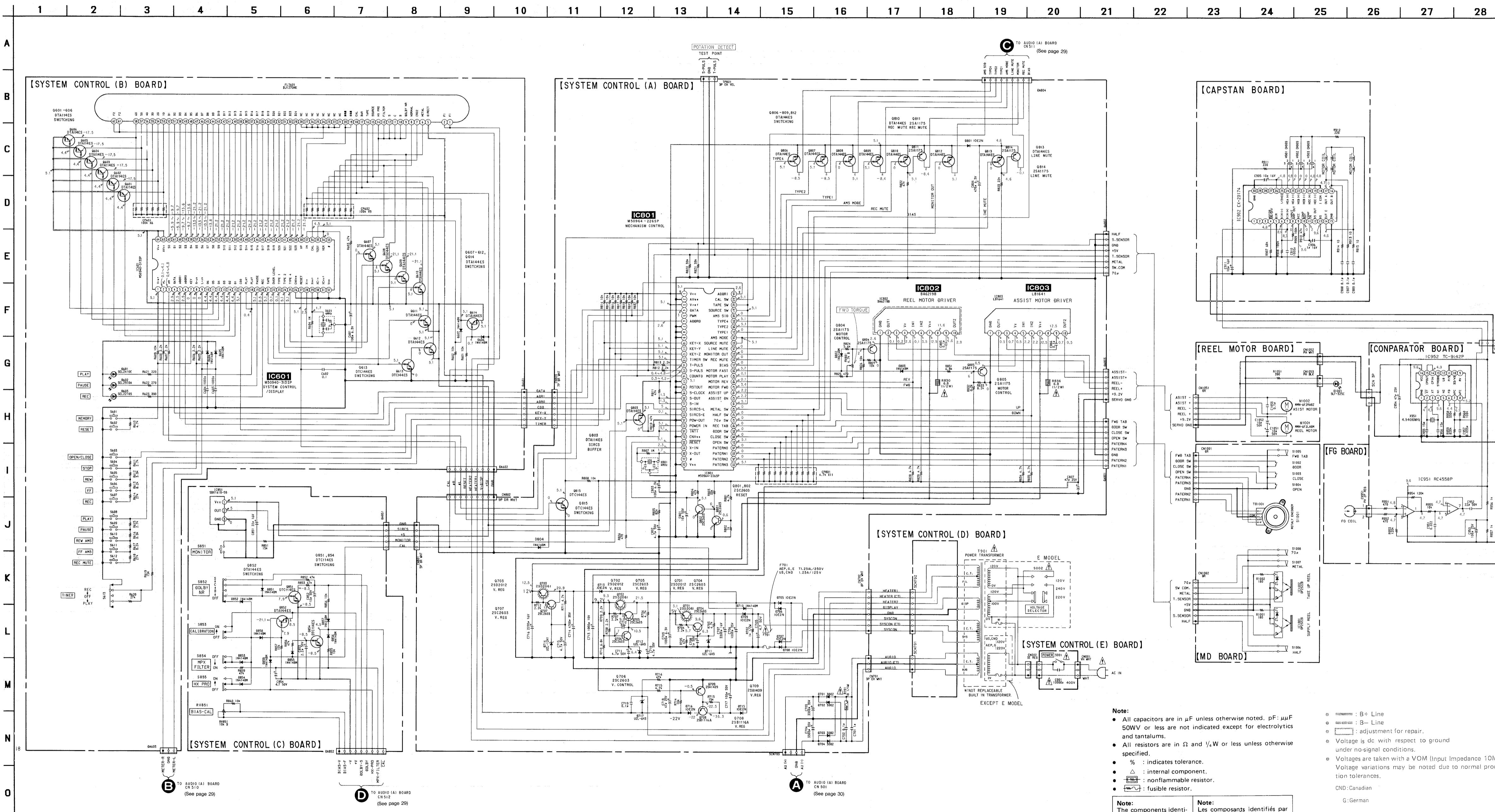
Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- % : indicates tolerance.
- \triangle : internal component.
-  : nonflammable resistor.

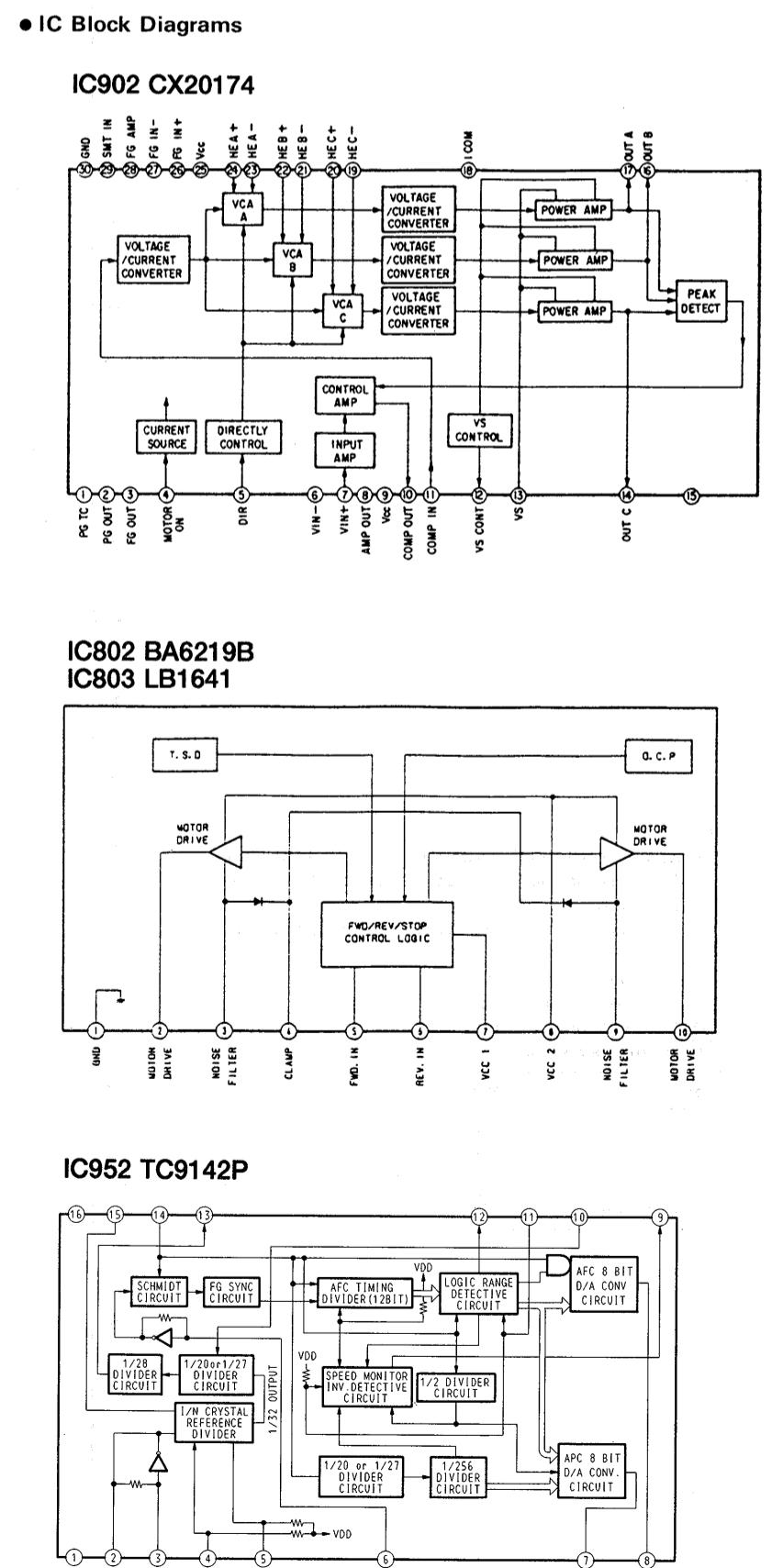
| | |
|--|---|
| <p>Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.</p> | <p>Note: Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p> |
|--|---|

- : B+ Line
 - : B- Line
 - : adjustment for repair.
 - Voltage is dc with respect to ground under no-signal conditions.
 - Voltages are taken with a VOM (Input Impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 - : PB
 - : REC

5-4. SCHEMATIC DIAGRAM—SYSTEM CONTROL Section—



Note:
 The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.
Note:
 Les composants identifiés par une marque Δ ou une ligne pointillée avec une marque Δ sont critiques pour la sécurité. Remplacer uniquement par une pièce portant le numéro spécifié.



5-5. PRINTED WIRING BOARDS -SYSTEM CONTROL Section-

• See page 37 for Circuit Boards Location and Semiconductor Lead Layouts.

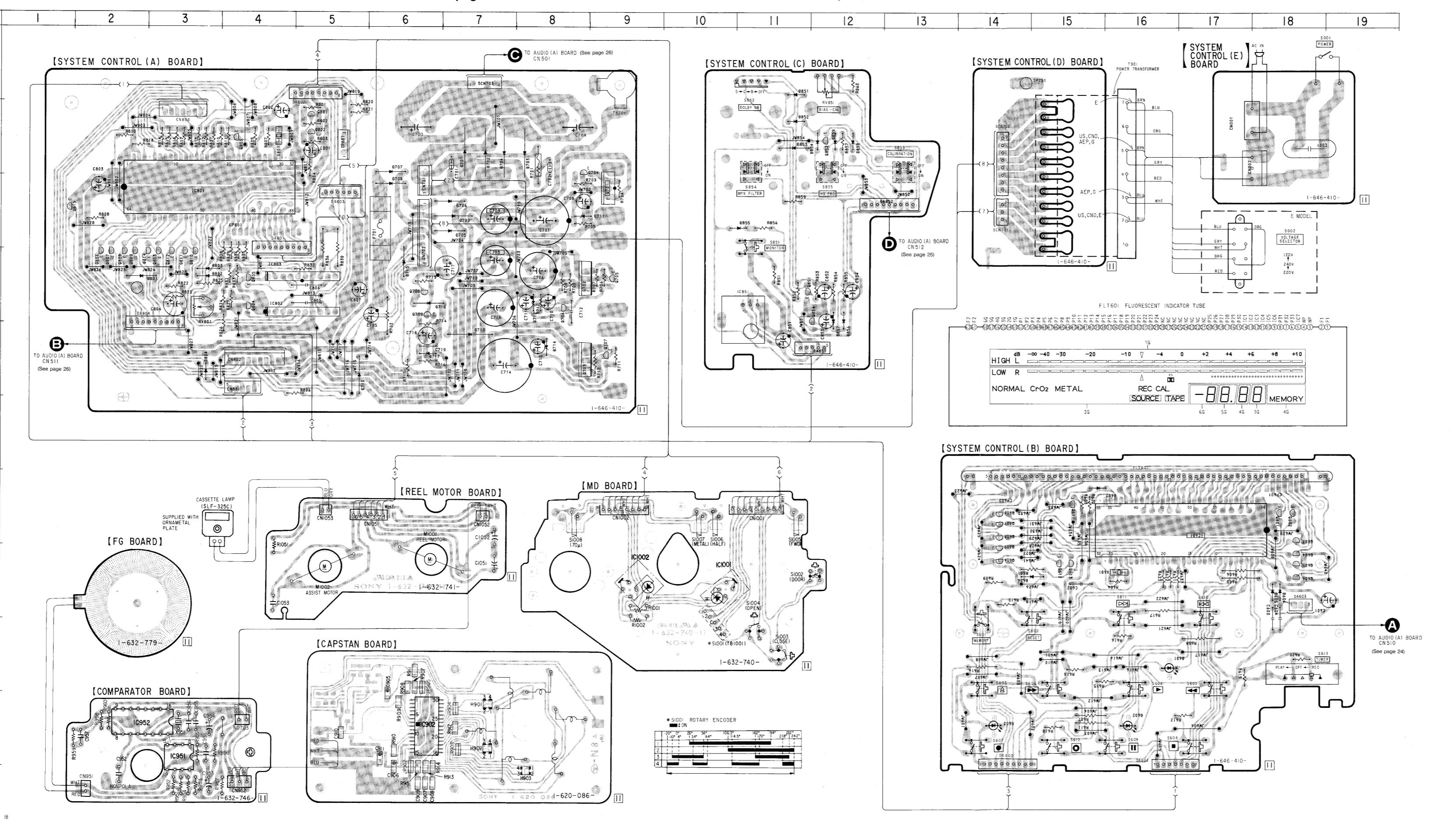
● Semiconductor Location

| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D601 | I-16 | IC952 | J-2 |
| D602 | J-16 | IC1001 | H-10 |
| D603 | J-14 | IC1002 | H-9 |
| D604 | H-18 | | |
| D605 | H-18 | G601 | G-18 |
| D606 | H-14 | G602 | G-18 |
| D607 | G-16 | G603 | G-18 |
| D701 | B-7 | Q604 | H-18 |
| D702 | B-7 | Q605 | H-18 |
| D703 | B-8 | Q606 | H-18 |
| D704 | B-7 | Q607 | G-14 |
| D705 | C-7 | Q608 | G-14 |
| D706 | C-7 | Q609 | H-14 |
| D707 | B-6 | Q610 | G-14 |
| D708 | B-6 | Q611 | G-15 |
| D709 | C-7 | Q612 | H-15 |
| D710 | E-5 | Q613 | H-15 |
| D711 | C-9 | Q614 | H-14 |
| D712 | D-8 | Q701 | C-9 |
| D713 | E-7 | Q702 | D-8 |
| D714 | E-8 | Q703 | E-8 |
| D715 | D-6 | Q704 | B-9 |
| D716 | D-6 | Q705 | D-9 |
| D717 | D-6 | Q706 | D-8 |
| D801 | D-3 | Q707 | E-9 |
| D802 | D-3 | Q708 | D-6 |
| D803 | D-3 | Q709 | D-6 |
| D804 | E-3 | Q801 | B-5 |
| D851 | A-11 | Q802 | B-5 |
| D852 | B-11 | Q803 | B-4 |
| D853 | B-11 | Q804 | D-4 |
| D854 | B-12 | Q805 | D-4 |
| D855 | C-11 | Q806 | D-2 |
| D856 | E-12 | Q807 | D-2 |
| D857 | E-12 | Q808 | D-2 |
| D858 | B-12 | Q809 | D-2 |
| D859 | B-12 | Q810 | D-3 |
| IC801 | G-17 | Q811 | D-3 |
| IC801 | C-3 | Q812 | D-3 |
| IC802 | D-4 | Q813 | D-3 |
| IC803 | D-4 | Q814 | D-2 |
| IC851 | D-11 | Q815 | C-1 |
| IC902 | J-6 | Q851 | D-11 |
| IC951 | J-3 | Q852 | B-12 |
| | | Q854 | D-12 |

Note:
 • ○ : parts extracted from the component side.
 • ■ : parts mounted on the conductor side.
 • ▨ : Pattern on the side which is seen.

CND: Canadian

G: German



5-6. SEMICONDUCTOR LEAD LAYOUTS

BA6219B

LB1641

M5218AL

2SA985A-QP

2SC2275A-P

2SD2012

CXA1417Q

2SA1175-HFE

2SC2603-EF

2SD2144S-UVW

DTA144ES

DTA144ES

DTC144ES

DTC144ES

GP2S22B

2SA1409-LK

2SB1116A-L

2SB646-C

2SC1815-Y

2SC945-P

2SD666-C

HZN6C3L

UZL-12H1

UZL-6L3

E

C

B

10E2N

1N4148M

30DF2

SEL2210S-D

SEL2410E-D

SEL2910A-D

long

S

G

D

cathode

anode

E

C

B

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

SYSTEM CONTROL (B) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

DOLBY S board

AUDIO (E) board

AUDIO (D) board

AUDIO (C) board

AUDIO (B) board

REEL MOTOR board

SYSTEM CONTROL (C) board

CAPSTAN board

COMPARATOR board

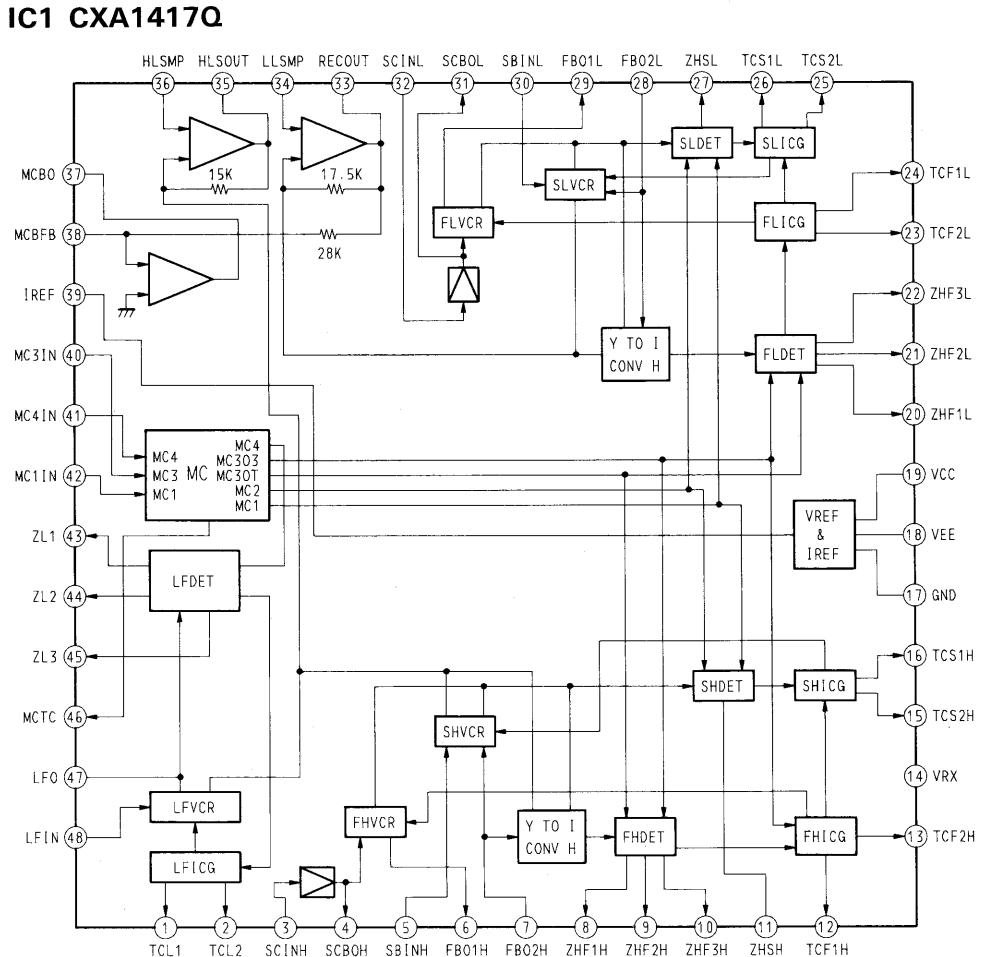
MD board

SYSTEM CONTROL (E) board

SYSTEM CONTROL (A) board

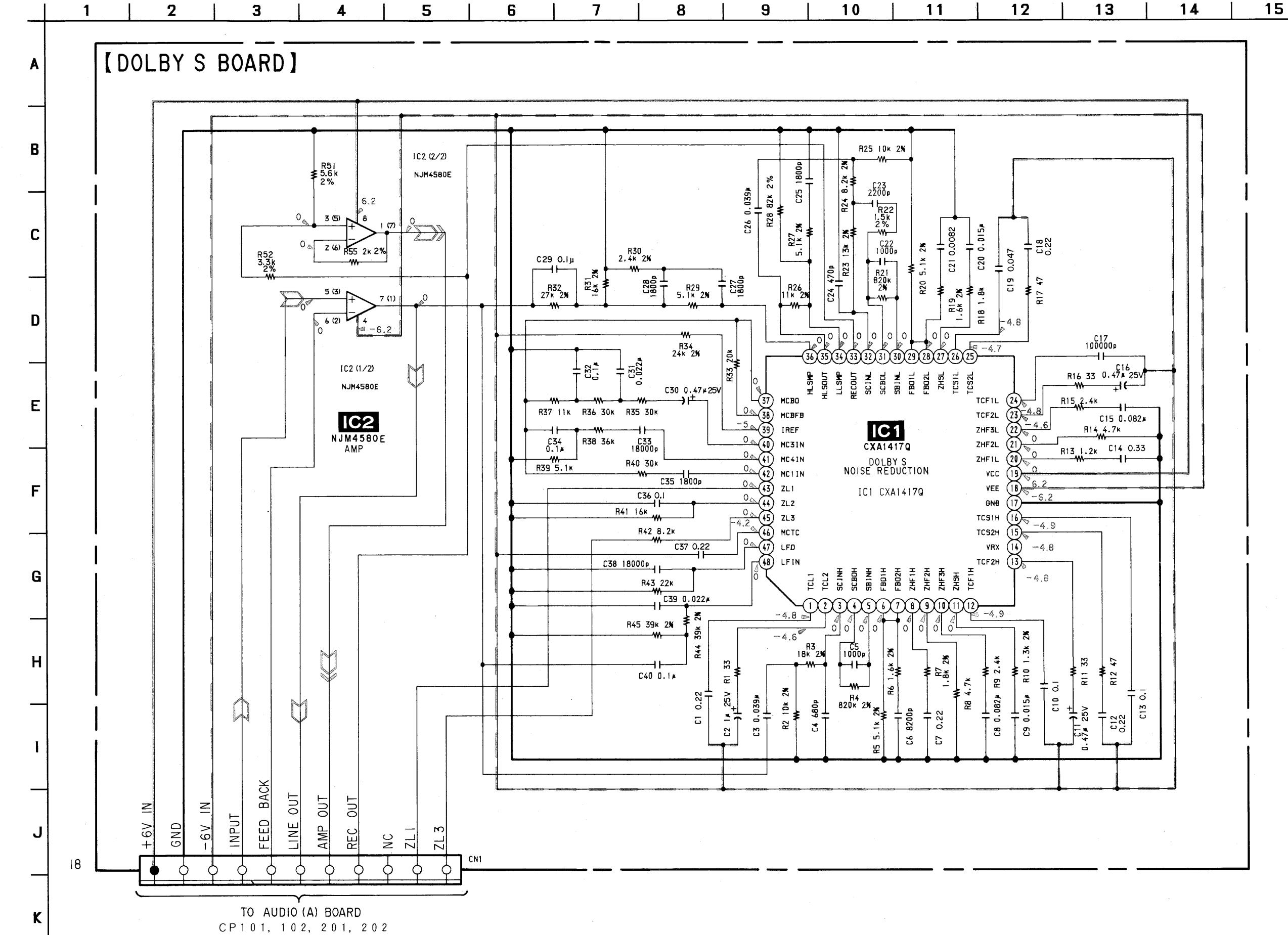
● IC Block Diagram

5-8. SCHEMATIC DIAGRAM –DOLBY S Section-



Note:

- All capacitors are in μF unless otherwise noted. pF: μF
50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 - % : indicates tolerance.
 - : B+ Line
 - : B- Line
 - Voltage is dc with respect to ground under no-signal conditions.
 - Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 - : PB
 - : REC



SECTION 6

EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE)... (RED)
 ↑ ↑
 Parts color Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardwear (#mark) list is given in the last of this parts list.

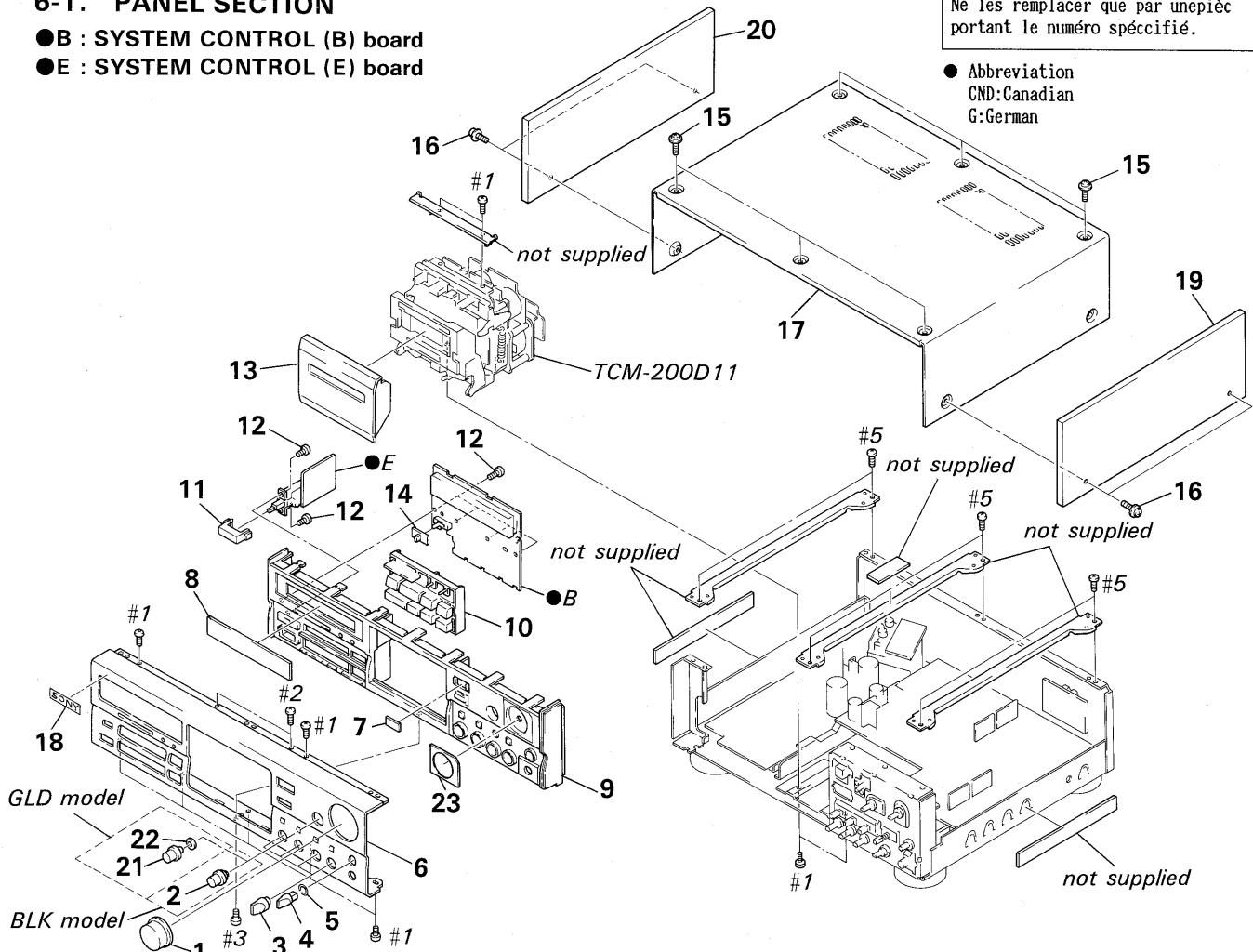
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

● Abbreviation
CND:Canadian
G:German

6-1. PANEL SECTION

- B : SYSTEM CONTROL (B) board
● E : SYSTEM CONTROL (E) board

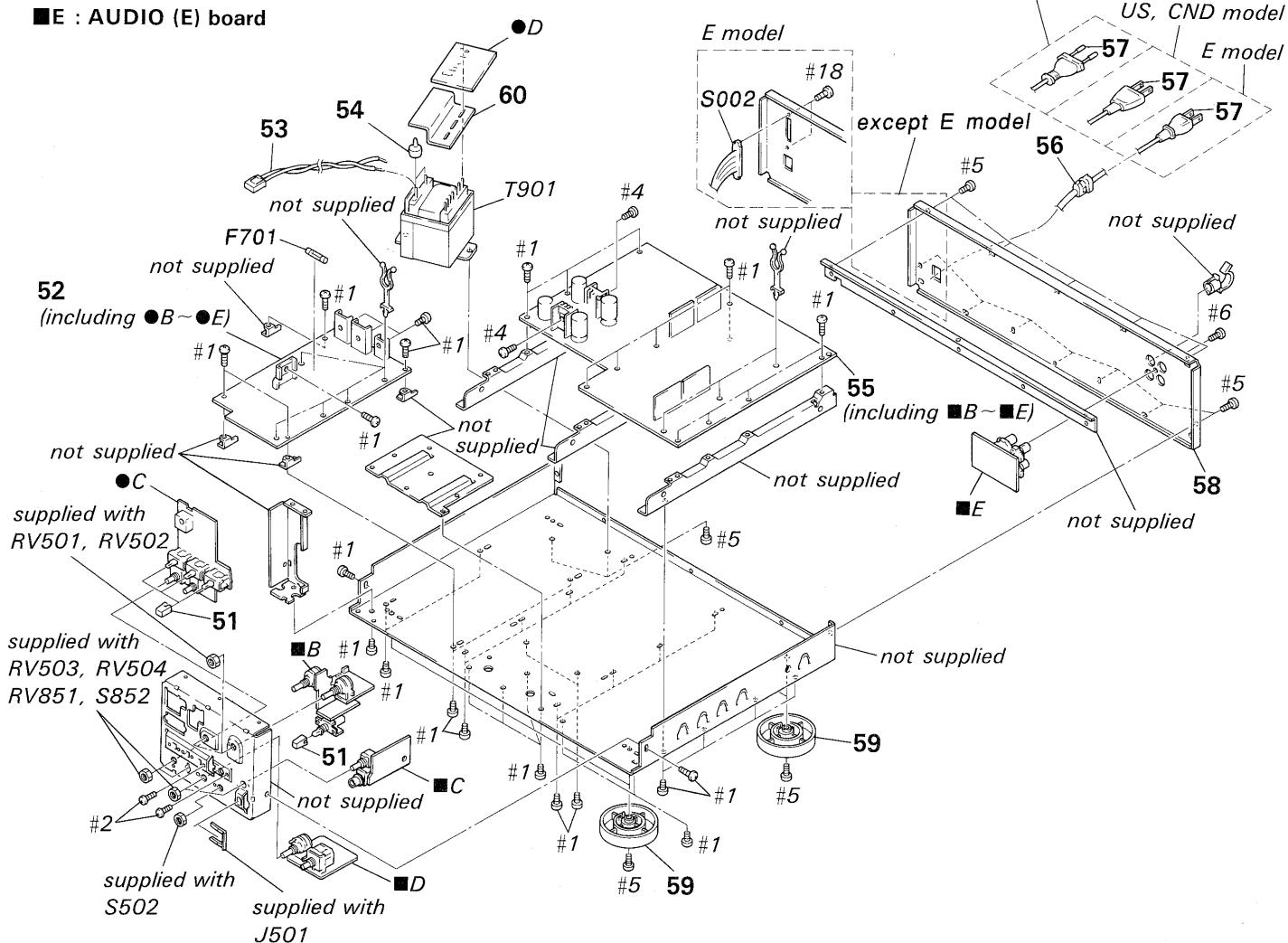


| Ref. No. | Part No. | Description | Remark |
|----------|--------------|--|--------|
| 1 | X-3362-289-1 | KNOB (VOL) ASSY (BLK) | |
| 1 | X-3365-344-1 | KNOB (VOL) ASSY (GLD) | |
| 2 | X-3365-387-1 | KNOB (BAL) ASSY (B) (BLK) | |
| 3 | X-3362-818-1 | KNOB (DIA. 12) ASSY (B), FLAT (BLK) | |
| 3 | X-3363-490-1 | KNOB (DIA. 12) ASSY (B), FLAT (GLD) | |
| 4 | 3-354-931-01 | KNOB (DIA. 10) (BLK) | |
| 4 | 3-354-931-31 | KNOB (DIA. 10) (GLD) | |
| 5 | 3-354-981-01 | SPRING (SUS), RING (BLK) | |
| 5 | 3-356-935-01 | SPRING (SUS), RING (GLD) | |
| 6 | 3-385-609-11 | PANEL, FRONT (US, CND) | |
| 6 | 3-385-609-21 | PANEL, FRONT (AEP, G:BLK) | |
| 6 | 3-385-609-31 | PANEL, FRONT (GLD) | |
| 6 | 3-385-609-61 | PANEL, FRONT (E) | |
| 7 | 3-385-600-01 | WINDOW (R) | |
| 8 | 3-385-605-01 | WINDOW (METER) | |
| * 9 | 3-384-775-01 | PANEL (BASE) (BLK) | |
| * 9 | 3-384-775-11 | PANEL (BASE) (GLD) | |
| 10 | X-3366-040-1 | BUTTON (BLOCK) ASSY (BLK) | |
| 10 | X-3366-750-1 | BUTTON (BLOCK) ASSY (N) (GLD) | |
| 11 | 3-354-932-01 | BUTTON (POWER) (BLK) | |
| 11 | 3-354-932-11 | BUTTON (POWER) (GLD) | |
| 12 | 4-951-620-01 | SCREW (2.6X8), +BVTP | |
| 13 | X-3366-748-1 | LID ASSY (F), CASSETTE (AEP, G:BLK, E) | |

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|--|--------|
| 13 | X-3366-749-1 | LID ASSY (G), CASSETTE (GLD) | |
| 13 | X-3366-751-1 | LID ASSY (H), CASSETTE (US, CND) | |
| 14 | 4-922-518-01 | KNOB (TIMER) (BLK) | |
| 14 | 4-922-518-62 | KNOB (TIMER) (GLD) | |
| 15 | 3-704-366-11 | SCREW (CASE) (M3X8) (GLD) | |
| 15 | 3-704-366-01 | SCREW (CASE) (M3X8) (BLK) | |
| 16 | 4-933-446-01 | SCREW (SIDE PANEL) | |
| * 17 | 3-364-366-01 | CASE (BLK) | |
| * 17 | 3-364-366-41 | CASE (GLD) | |
| 18 | 4-942-568-01 | EMBLEM (NO. 5), SONY (BLK) | |
| 18 | 4-942-568-11 | EMBLEM (NO. 5), SONY (GLD) | |
| 19 | X-3340-188-1 | PANEL (R) ASSY, SIDE (US, CND, E, AEP:BLK) | |
| 19 | X-3362-386-1 | PANEL (R) ASSY, SIDE (G:BLK) | |
| 19 | X-3363-178-2 | PANEL (R) ASSY, SIDE (GLD) | |
| 20 | X-3340-187-1 | PANEL (L) ASSY, SIDE (US, CND, E, AEP:BLK) | |
| 20 | X-3362-385-1 | PANEL (L) ASSY, SIDE (G:BLK) | |
| 20 | X-3363-177-2 | PANEL (L) ASSY, SIDE (GLD) | |
| 21 | 3-364-173-21 | KNOB (BAL) (GLD) | |
| 22 | 3-356-957-01 | SPRING (GLD) | |
| 23 | 3-364-166-01 | PLATE (VOL), ORNAMENTAL (BLK) | |
| 23 | 3-364-166-11 | PLATE (VOL), ORNAMENTAL (GLD) | |

6-2. CHASSIS SECTION

- C : SYSTEM CONTROL (C) board
- D : SYSTEM CONTROL (D) board
- B : AUDIO (B) board
- C : AUDIO (C) board
- D : AUDIO (D) board
- E : AUDIO (E) board



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

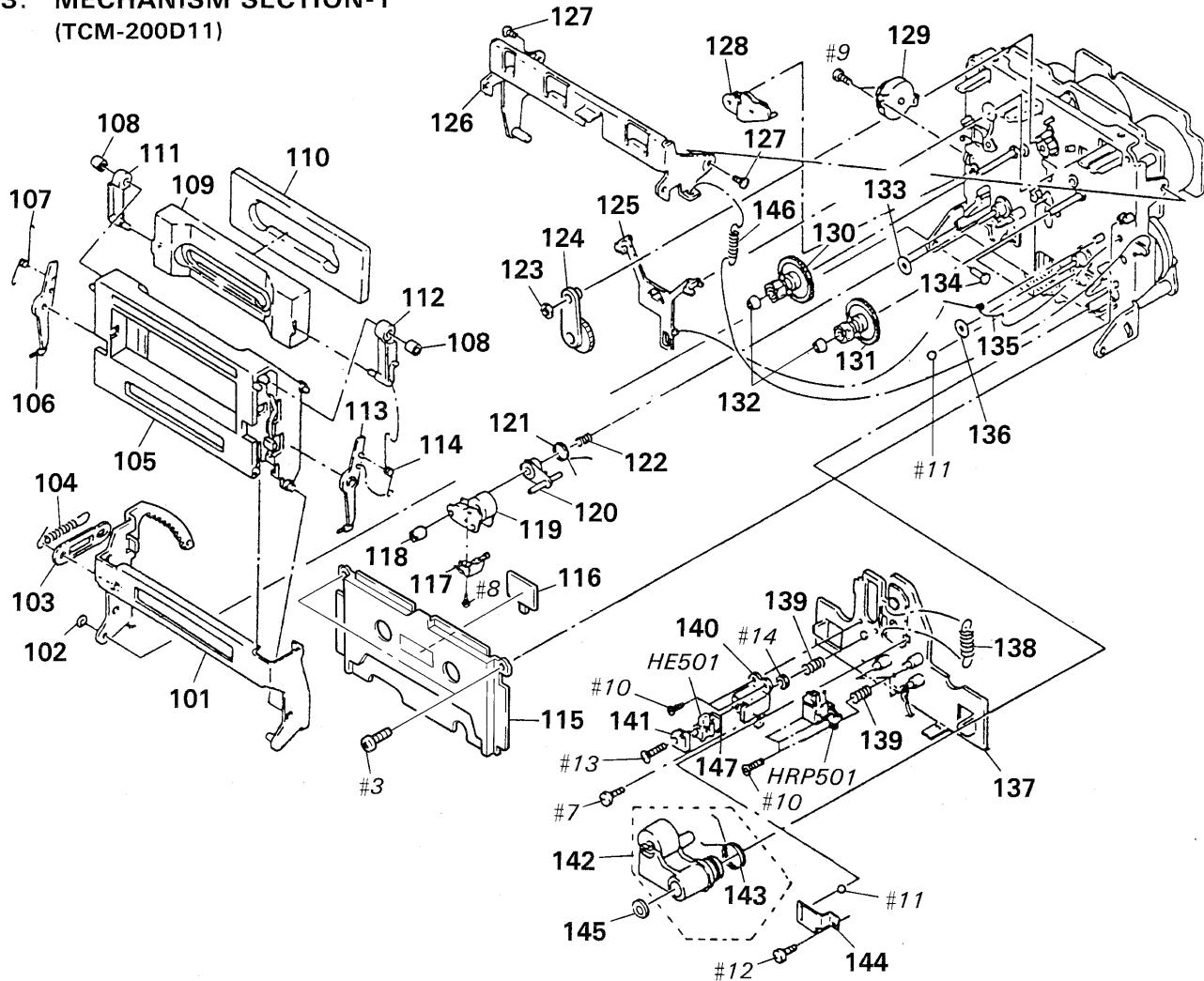
Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref. No. | Part No. | Description | Remark |
|----------------|--------------|------------------------------------|--------|
| 51 | 3-380-952-01 | BUTTON (BLK) | |
| | 3-380-952-11 | BUTTON (GLD) | |
| * 52 | A-2006-998-A | SYSTEM CONTROL BOARD, COMPLETE | |
| * 53 | 1-590-321-61 | LEAD (WITH CONNECTOR) | |
| * 54 | 3-356-961-02 | COVER (TRANSFORMER) (E) | |
| * 54 | 4-912-962-01 | COVER (1P), TERMINAL (EXCEPT E) | |
| * 55 | A-2006-898-A | AUDIO BOARD, COMPLETE (EXCEPT CND) | |
| * 55 | A-2006-997-A | AUDIO BOARD, COMPLETE (CND) | |
| * 56 | 3-703-244-00 | BUSHING (2104), CORD (EXCEPT E) | |
| * 56 | 3-703-571-11 | BUSHING (S) (4516), CORD (E) | |
| \triangle 57 | 1-558-568-21 | CORD, POWER (AEP, G) | |
| \triangle 57 | 1-559-583-21 | CORD, POWER (US, CND) | |
| \triangle 57 | 1-696-027-11 | CORD, POWER (E) | |

| Ref. No. | Part No. | Description | Remark |
|------------------|--------------|--|--------|
| * 58 | 3-384-774-11 | PANEL, BACK (US, CND) | |
| * 58 | 3-384-774-21 | PANEL, BACK (AEP, G:BLK) | |
| * 58 | 3-384-774-31 | PANEL, BACK (GLD) | |
| * 58 | 3-384-774-41 | PANEL, BACK (E) | |
| 59 | X-3304-944-1 | FOOT ASSY (BLK) | |
| 59 | X-3363-489-1 | FOOT ASSY (GLD) | |
| * 60 | 3-356-961-02 | COVER (TRANS) (E) | |
| \triangle F701 | 1-532-285-00 | FUSE, TIME-LAG (1. 25A/250V) (AEP, G, E) | |
| \triangle F701 | 1-532-741-11 | FUSE, GLASS TUBE (1. 25A/125V) (US, CND) | |
| \triangle S002 | 1-692-155-11 | SELECTOR, POWER VOLTAGE (E) | |
| \triangle T901 | 1-423-684-11 | TRANSFORMER, POWER (US, CND) | |
| \triangle T901 | 1-423-685-11 | TRANSFORMER, POWER (AEP, G) | |
| \triangle T901 | 1-423-686-11 | TRANSFORMER, POWER (E) | |

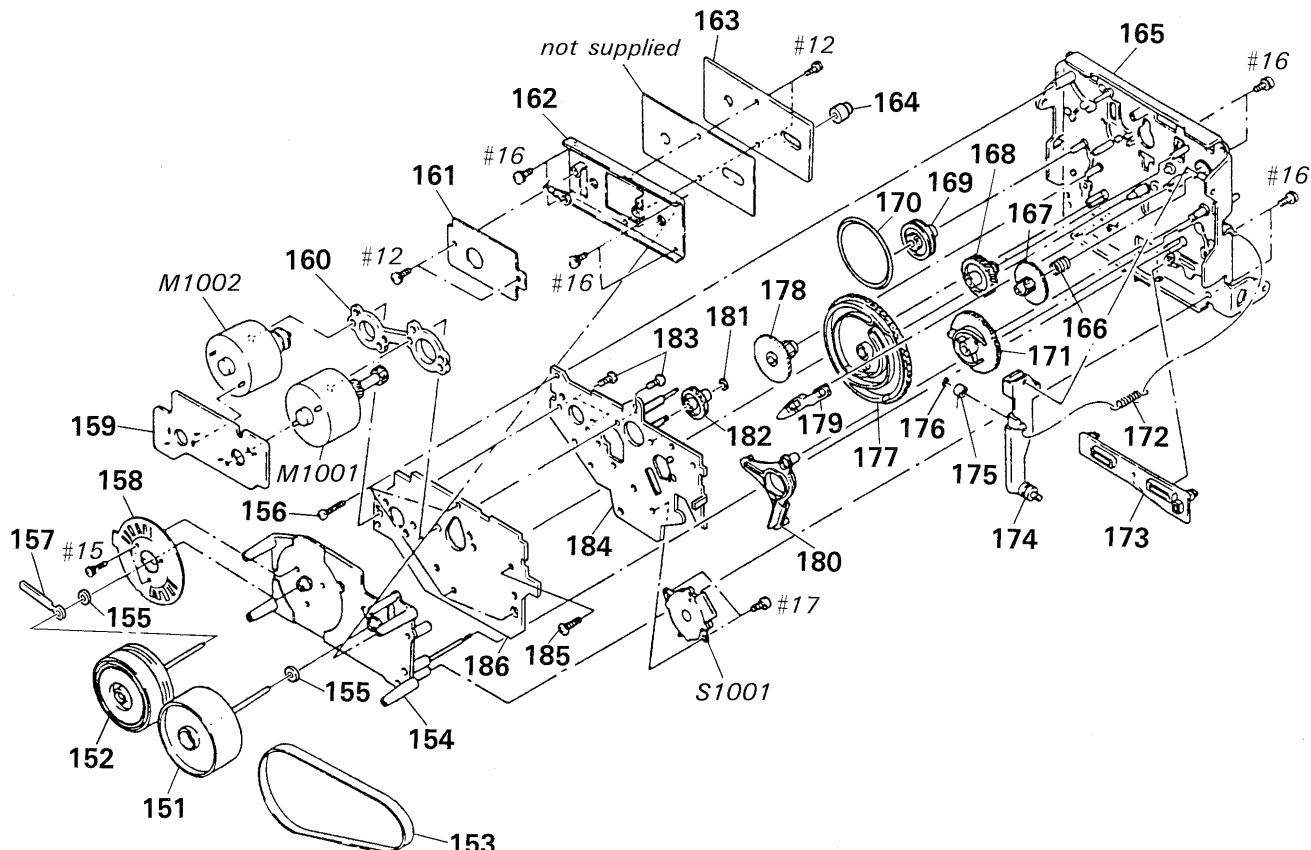
6-3. MECHANISM SECTION-1

(TCM-200D11)



| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|---------------------------------|--------|----------|--------------|---------------------------------|--------|
| 101 | X-3362-671-1 | HOLDER (BG) ASSY, CASSETTE | | * 126 | X-3356-608-1 | LEVER (LIFTER) ASSY | |
| 102 | 3-558-708-11 | WASHER, STOPPER | | 127 | 3-356-601-11 | SCREW, STEP | |
| * 103 | 3-356-717-01 | LEVER (JOINT) | | 128 | X-3356-623-1 | LEVER (BT) ASSY | |
| 104 | 3-356-626-01 | SPRING, TENSION | | 129 | 3-319-224-41 | DAMPER, SMALL | |
| 105 | X-3365-065-1 | HOLDER (D9) ASSY, CASSETTE | | 130 | X-3356-629-1 | GEAR (S) ASSY | |
| 106 | 3-356-932-01 | LEVER (LA) | | 131 | X-3356-627-1 | GEAR (T) ASSY | |
| 107 | 3-356-927-01 | SPRING (LEFT), TORSION | | 132 | 3-362-308-01 | CAP (REEL) | |
| 108 | 3-356-946-01 | BUSHING | | 133 | 3-356-713-01 | WASHER | |
| 109 | 3-356-928-11 | PLATE (A), ORNAMENTAL | | 134 | 3-356-710-01 | SHAFT (LEFT) (CASSETTE HOLDER) | |
| * 110 | 3-356-929-01 | ABSORBENT, VIBRATION | | 135 | 3-356-619-01 | SPRING (B), TORSION | |
| 111 | 3-356-933-01 | LEVER (LB) | | 136 | 3-332-763-01 | RING, OIL RESERVOIR | |
| 112 | 3-356-931-01 | LEVER (RB) | | * 137 | X-3362-199-1 | SLIDER (HEAD CHASSIS D) ASSY | |
| 113 | 3-356-930-01 | LEVER (RA) | | 138 | 3-356-658-01 | SPRING (LIMITER H), TENSION | |
| 114 | 3-356-926-01 | SPRING (RIGHT), TORSION | | 139 | 3-564-121-00 | SPRING, COMPRESSION | |
| 115 | X-3356-613-1 | PLATE ASSY, ORNAMENTAL | | * 140 | 3-576-977-00 | BRACKET, E. HEAD | |
| 116 | 8-719-980-85 | DIODE SLF325C | | 141 | 3-318-433-01 | SPRING | |
| 117 | 3-389-445-01 | GUIDE (SL), TAPE | | 142 | X-3356-620-1 | LEVER (PINCH LEVER T) ASSY | |
| 118 | 3-356-652-01 | NUT (PINCH LEVER S) | | 143 | 3-356-672-01 | SPRING (PINCH LEVER T), TORSION | |
| 119 | X-3356-621-1 | LEVER (PINCH LEVER S) ASSY | | 144 | 3-356-656-01 | SPRING (HEAD PC BOARD), LEAF | |
| 120 | 3-356-660-01 | LEVER (PS) | | 145 | 3-669-596-00 | WASHER (2.3), STOPPER | |
| 121 | 3-356-661-01 | SPRING (PINCH LEVER S), TORSION | | 146 | 3-376-854-01 | SPRING, TENSION | |
| 122 | 3-356-657-01 | SPRING (PS), COMPRESSION | | * 147 | 1-608-268-00 | PC BOARD, ERASE HEAD | |
| 123 | 3-669-465-11 | WASHER (1.5), STOPPER | | HE501 | 1-543-836-11 | HEAD, MAGNETIC (ERASE) | |
| 124 | X-3356-641-1 | LEVER (PR2) ASSY | | HRP501 | 1-543-684-21 | HEAD, MAGNETIC (REC/PB) | |
| 125 | 3-356-614-01 | SLIDER (BRAKE) | | | | | |

6-4. MECHANISM SECTION-2 (TCM-200D11)



| Ref. No. | Part No. | Description | Remark |
|----------|--------------|---------------------------------|--------|
| 151 | X-3362-284-1 | FLYWHEEL (S2.3) ASSY | |
| 152 | X-3356-619-1 | FLYWHEEL (DT) ASSY | |
| 153 | 3-364-600-01 | BELT (CAPSTAN) | |
| 154 | X-3362-281-1 | CHASSIS (D2.3) ASSY | |
| 155 | 3-356-705-31 | WASHER (CAPSTAN) | |
| 156 | 3-381-811-01 | SCREW (PTPWH) (2X18) | |
| 157 | 3-703-150-11 | STOPPER, WIRING | |
| 158 | 1-632-779-11 | PC BOARD, FG | |
| * 159 | 1-632-741-11 | REEL MOTOR BOARD | |
| * 160 | 3-356-628-01 | SPACER (MOTOR) | |
| * 161 | 1-632-746-11 | COMPARATOR BOARD | |
| * 162 | X-3362-282-1 | BRACKET (THRUST RETAINER) ASSY | |
| 163 | A-2006-154-A | CAPSTAN C. O. C BOARD, COMPLETE | |
| 164 | 3-364-135-01 | RETAINER (S), THRUST | |
| 165 | X-3356-622-1 | CHASSIS (C) ASSY, MECHANICAL | |
| 166 | 3-356-605-01 | SPRING, COMPRESSION | |
| 167 | 3-356-609-01 | GEAR (LOADING) | |
| 168 | 3-356-703-01 | GEAR (COMMUNICATION C) | |
| 169 | 3-356-607-01 | PULLEY (MODE) | |
| 170 | 3-356-603-01 | BELT (MODE) | |

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|------------------------|--------|
| 171 | 3-356-616-01 | GEAR (LOADING CAM) | |
| 172 | 3-356-625-01 | SPRING, TENSION | |
| 173 | 3-356-653-01 | SLIDER (PAUSE) | |
| * 174 | X-3356-606-1 | LEVER (LOADING) ASSY | |
| 175 | 3-356-630-01 | ROLLER (LOADING) | |
| 176 | 3-558-708-21 | WASHER, STOPPER | |
| 177 | 3-356-654-01 | GEAR (MODE CAM C) | |
| 178 | 3-356-606-01 | GEAR (MODE) | |
| 179 | 3-356-617-01 | LEVER (SELECTION) | |
| 180 | 3-356-613-01 | LEVER (MODE) | |
| 181 | 3-669-465-00 | WASHER (1.5), STOPPER | |
| 182 | 3-356-702-01 | GEAR (COMMUNICATION B) | |
| 183 | 3-363-804-01 | SCREW (+P 2.6X6.5) | |
| * 184 | X-3356-616-1 | BRACKET (MOTOR D) ASSY | |
| 185 | 3-356-707-01 | SCREW (+PTPWH 2X25) | |
| * 186 | 1-632-740-11 | MD BOARD | |
| M1001 | X-3356-638-1 | MOTOR (REEL R) ASSY | |
| M1002 | X-3356-604-1 | MOTOR (ASSIST) ASSY | |
| S1001 | 1-466-238-11 | ENCODER, ROTARY | |

SECTION 7

ELECTRICAL PARTS LIST

AUDIO
DOLBY S
NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS

All resistors are in ohms.

METAL: Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

 In each case, u: μ , for example:

 uA .. : μ A.. uPA.. : μ PA..

 uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..

● CAPACITORS

 uF: μ F

When indicating parts by reference number, please include the board.

● COILS

 uH: μ H

● Abbreviation

CND : Canadian

G : German

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|---------------------------------------|-------------------|----------|--------------|--------------|------------------|
| * | A-2006-898-A | AUDIO BOARD, COMPLETE (US, AEP, G, E) | | C31 | 1-104-555-11 | FILM CHIP | 0.022uF 5% 16V |
| * | A-2006-997-A | AUDIO BOARD, COMPLETE (CND) | ***** | C32 | 1-104-563-11 | FILM CHIP | 0.1uF 5% 16V |
| | | DOLBY S BOARD | ***** | C33 | 1-163-024-00 | CERAMIC CHIP | 0.018uF 10% 50V |
| | | | | C34 | 1-137-306-11 | FILM CHIP | 0.1uF 5% 16V |
| | | | | C35 | 1-163-012-00 | CERAMIC CHIP | 0.0018uF 10% 50V |
| | | | | C36 | 1-165-319-11 | CERAMIC CHIP | 0.1uF 50V |
| | | 7-682-147-15 SCREW, TR | | C37 | 1-164-222-11 | CERAMIC CHIP | 0.22uF 25V |
| | | < CAPACITOR > | | C38 | 1-163-024-00 | CERAMIC CHIP | 0.018uF 10% 50V |
| C1 | 1-164-222-11 | CERAMIC CHIP | 0.22uF 25V | C39 | 1-104-555-11 | FILM CHIP | 0.022uF 5% 16V |
| C2 | 1-135-177-21 | TANTALUM CHIP | 1uF 20% | C40 | 1-137-306-11 | FILM CHIP | 0.1uF 5% 16V |
| C3 | 1-137-301-11 | FILM CHIP | 0.039uF 5% 16V | | | | |
| C4 | 1-163-007-11 | CERAMIC CHIP | 680PF 10% 50V | | | | |
| C5 | 1-163-009-11 | CERAMIC CHIP | 0.001uF 10% 50V | | | | |
| C6 | 1-164-717-11 | CERAMIC CHIP | 0.0082uF 5% 50V | | | | |
| C7 | 1-164-222-11 | CERAMIC CHIP | 0.22uF 25V | | | | |
| C8 | 1-104-562-11 | FILM CHIP | 0.082uF 5% 16V | | | | |
| C9 | 1-104-553-11 | FILM CHIP | 0.015uF 5% 16V | | | | |
| C10 | 1-165-319-11 | CERAMIC CHIP | 0.1uF 50V | | | | |
| C11 | 1-135-145-11 | TANTALUM CHIP | 0.47uF 10% 35V | | | | |
| C12 | 1-164-222-11 | CERAMIC CHIP | 0.22uF 25V | | | | |
| C13 | 1-165-319-11 | CERAMIC CHIP | 0.1uF 50V | | | | |
| C14 | 1-162-568-11 | CERAMIC CHIP | 0.33uF 10% 16V | | | | |
| C15 | 1-104-562-11 | FILM CHIP | 0.082uF 5% 16V | | | | |
| C16 | 1-135-145-11 | TANTALUM CHIP | 0.47uF 10% 35V | | | | |
| C17 | 1-165-319-11 | CERAMIC CHIP | 0.1uF 50V | | | | |
| C18 | 1-164-222-11 | CERAMIC CHIP | 0.22uF 25V | | | | |
| C19 | 1-163-035-00 | CERAMIC CHIP | 0.047uF 50V | | | | |
| C20 | 1-104-553-11 | FILM CHIP | 0.015uF 5% 16V | | | | |
| C21 | 1-164-717-11 | CERAMIC CHIP | 0.0082uF 5% 50V | | | | |
| C22 | 1-163-009-11 | CERAMIC CHIP | 0.001uF 10% 50V | | | | |
| C23 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF 10% 100V | | | | |
| C24 | 1-163-005-11 | CERAMIC CHIP | 470PF 10% 50V | | | | |
| C25 | 1-163-012-00 | CERAMIC CHIP | 0.0018uF 10% 50V | | | | |
| C26 | 1-137-301-11 | FILM CHIP | 0.039uF 5% 16V | | | | |
| C27 | 1-163-012-00 | CERAMIC CHIP | 0.0018uF 10% 50V | | | | |
| C28 | 1-163-012-00 | CERAMIC CHIP | 0.0018uF 10% 50V | | | | |
| C29 | 1-137-306-11 | FILM CHIP | 0.1uF 5% 16V | | | | |
| C30 | 1-135-145-11 | TANTALUM CHIP | 0.47uF 10% 35V | | | | |
| | | | | C111 | 1-136-173-00 | FILM | 0.47uF 5% 50V |
| | | | | C112 | 1-136-167-00 | FILM | 0.15uF 5% 50V |
| | | | | C113 | 1-136-155-00 | FILM | 0.015uF 5% 50V |
| | | | | C114 | 1-124-903-11 | ELECT | 1uF 20% 50V |
| | | | | C115 | 1-136-169-00 | FILM | 0.22uF 5% 50V |
| | | | | C116 | 1-136-163-00 | FILM | 0.068uF 5% 50V |
| | | | | C117 | 1-136-162-00 | FILM | 0.056uF 5% 50V |
| | | | | C118 | 1-124-903-11 | ELECT | 1uF 20% 50V |
| | | | | C119 | 1-130-480-00 | MYLAR | 0.0056uF 5% 50V |
| | | | | C120 | 1-136-153-00 | FILM | 0.01uF 5% 50V |
| | | | | C121 | 1-124-916-11 | ELECT | 22uF 20% 63V |
| | | | | C122 | 1-124-916-11 | ELECT | 22uF 20% 63V |
| | | | | C123 | 1-124-916-11 | ELECT | 22uF 20% 63V |
| | | | | C124 | 1-126-059-11 | ELECT | 10uF 20% 50V |
| | | | | C125 | 1-124-916-11 | ELECT | 22uF 20% 63V |
| | | | | C126 | 1-124-916-11 | ELECT | 22uF 20% 63V |
| | | | | C127 | 1-123-382-00 | ELECT | 3.3uF 20% 100V |
| | | | | C129 | 1-124-925-11 | ELECT | 2.2uF 20% 100V |
| | | | | C130 | 1-130-475-00 | MYLAR | 0.0022uF 5% 50V |
| | | | | C132 | 1-126-059-11 | ELECT | 10uF 20% 50V |

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| Ref. No. | Part No. | Description | Remark | | | Ref. No. | Part No. | Description | Remark | | |
|----------|--------------|-------------|----------|-----|------|----------|--------------|-------------|----------|-----|------|
| C133 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V | C205 | 1-136-593-11 | FILM | 0.0033uF | 5% | 100V |
| C134 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V | C206 | 1-107-161-00 | MICA | 39PF | 5% | 500V |
| C135 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V | C207 | 1-136-250-11 | FILM | 0.001uF | 5% | 100V |
| C136 | 1-107-159-00 | MICA | 33PF | 5% | 500V | C208 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V |
| C137 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V | C209 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V |
| C138 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V | C210 | 1-130-478-00 | MYLAR | 0.0039uF | 5% | 50V |
| C139 | 1-130-478-00 | MYLAR | 0.0039uF | 5% | 50V | C211 | 1-136-173-00 | FILM | 0.47uF | 5% | 50V |
| C140 | 1-136-173-00 | FILM | 0.47uF | 5% | 50V | C212 | 1-136-167-00 | FILM | 0.15uF | 5% | 50V |
| C141 | 1-136-167-00 | FILM | 0.15uF | 5% | 50V | C213 | 1-136-155-00 | FILM | 0.015uF | 5% | 50V |
| C142 | 1-136-155-00 | FILM | 0.015uF | 5% | 50V | C214 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C143 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | C215 | 1-136-169-00 | FILM | 0.22uF | 5% | 50V |
| C144 | 1-136-169-00 | FILM | 0.22uF | 5% | 50V | C216 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
| C145 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V | C217 | 1-136-162-00 | FILM | 0.056uF | 5% | 50V |
| C146 | 1-136-162-00 | FILM | 0.056uF | 5% | 50V | C218 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C147 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | C219 | 1-130-480-00 | MYLAR | 0.0056uF | 5% | 50V |
| C148 | 1-130-480-00 | MYLAR | 0.0056uF | 5% | 50V | C220 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C149 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V | C221 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C150 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | C222 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C151 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | C223 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C152 | 1-124-916-11 | ELECT | 22uF | 20% | 63V | C224 | 1-126-059-11 | ELECT | 10uF | 20% | 50V |
| C153 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | C225 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C154 | 1-124-916-11 | ELECT | 22uF | 20% | 63V | C226 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C155 | 1-124-916-11 | ELECT | 22uF | 20% | 63V | C227 | 1-123-382-00 | ELECT | 3.3uF | 20% | 100V |
| C156 | 1-106-347-00 | MYLAR | 1500PF | 5% | 200V | C229 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C157 | 1-106-343-00 | MYLAR | 1000PF | 5% | 200V | C232 | 1-126-059-11 | ELECT | 10uF | 20% | 50V |
| C158 | 1-106-347-00 | MYLAR | 1500PF | 5% | 200V | C233 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V |
| C159 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | C234 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V |
| C160 | 1-130-493-00 | MYLAR | 0.068uF | 5% | 50V | C235 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V |
| C161 | 1-130-485-00 | MYLAR | 0.015uF | 5% | 50V | C236 | 1-107-159-00 | MICA | 33PF | 5% | 500V |
| C162 | 1-130-487-00 | MYLAR | 0.022uF | 5% | 50V | C237 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V |
| C163 | 1-130-485-00 | MYLAR | 0.015uF | 5% | 50V | C238 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V |
| C164 | 1-130-490-11 | MYLAR | 0.039uF | 5% | 50V | C239 | 1-130-478-00 | MYLAR | 0.0039uF | 5% | 50V |
| C165 | 1-130-486-00 | MYLAR | 0.018uF | 10% | 50V | C240 | 1-136-173-00 | FILM | 0.47uF | 5% | 50V |
| C166 | 1-124-916-11 | ELECT | 22uF | 20% | 63V | C241 | 1-136-167-00 | FILM | 0.15uF | 5% | 50V |
| C167 | 1-136-252-00 | FILM | 0.0015uF | 5% | 100V | C242 | 1-136-155-00 | FILM | 0.015uF | 5% | 50V |
| C168 | 1-107-210-00 | MICA | 22PF | 5% | 500V | C243 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C169 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | C244 | 1-136-169-00 | FILM | 0.22uF | 5% | 50V |
| C170 | 1-136-161-00 | FILM | 0.047uF | 5% | 50V | C245 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
| C171 | 1-110-341-11 | MYLAR | 330PF | 5% | 50V | C246 | 1-136-162-00 | FILM | 0.056uF | 5% | 50V |
| C172 | 1-136-803-11 | FILM | 560PF | 5% | 630V | C247 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C173 | 1-107-169-00 | MICA | 100PF | 5% | 500V | C248 | 1-130-480-00 | MYLAR | 0.0056uF | 5% | 50V |
| C174 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V | C249 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C175 | 1-162-211-31 | CERAMIC | 33PF | 5% | 50V | C250 | 1-126-059-11 | ELECT | 10uF | 20% | 50V |
| C176 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V | C251 | 1-126-059-11 | ELECT | 10uF | 20% | 50V |
| C178 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | C252 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C201 | 1-130-893-00 | FILM | 0.027uF | 5% | 100V | C253 | 1-126-059-11 | ELECT | 10uF | 20% | 50V |
| C202 | 1-124-916-11 | ELECT | 22uF | 20% | 63V | C254 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C203 | 1-124-916-11 | ELECT | 22uF | 20% | 63V | C255 | 1-124-916-11 | ELECT | 22uF | 20% | 63V |
| C204 | 1-130-893-00 | FILM | 0.027uF | 5% | 100V | | | | | | |

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| Ref. No. | Part No. | Description | Remark | | Ref. No. | Part No. | Description | Remark | | |
|----------|--------------|-------------|----------|-----|----------|-------------------------------|--------------|---------------------|----------|----------|
| C256 | 1-106-347-00 | MYLAR | 1500PF | 5% | 200V | C530 | 1-123-369-00 | ELECT | 4.7uF | 20% 50V |
| C257 | 1-106-343-00 | MYLAR | 1000PF | 5% | 200V | C531 | 1-123-369-00 | ELECT | 4.7uF | 20% 50V |
| C258 | 1-106-347-00 | MYLAR | 1500PF | 5% | 200V | C532 | 1-124-925-11 | ELECT | 2.2uF | 20% 100V |
| C259 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | C533 | 1-126-059-11 | ELECT | 10uF | 20% 50V |
| C260 | 1-130-493-00 | MYLAR | 0.068uF | 5% | 50V | C534 | 1-124-477-11 | ELECT | 47uF | 20% 25V |
| C261 | 1-130-485-00 | MYLAR | 0.015uF | 5% | 50V | C535 | 1-136-161-00 | FILM | 0.047uF | 5% 50V |
| C262 | 1-130-487-00 | MYLAR | 0.022uF | 5% | 50V | C536 | 1-124-907-11 | ELECT | 10uF | 20% 50V |
| C263 | 1-130-485-00 | MYLAR | 0.015uF | 5% | 50V | C537 | 1-124-925-11 | ELECT | 2.2uF | 20% 100V |
| C264 | 1-130-490-11 | MYLAR | 0.039uF | 5% | 50V | C538 | 1-162-282-31 | CERAMIC | 100PF | 10% 50V |
| C265 | 1-130-486-00 | MYLAR | 0.018uF | 10% | 50V | C539 | 1-136-228-11 | FILM | 0.0012uF | 5% 100V |
| C266 | 1-124-916-11 | ELECT | 22uF | 20% | 63V | C540 | 1-136-228-11 | FILM | 0.0012uF | 5% 100V |
| C267 | 1-136-252-00 | FILM | 0.0015uF | 5% | 100V | C541 | 1-136-233-11 | FILM | 0.0047uF | 5% 100V |
| C268 | 1-107-210-00 | MICA | 22PF | 5% | 500V | C542 | 1-124-907-11 | ELECT | 10uF | 20% 50V |
| C269 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | C543 | 1-136-559-11 | FILM | 0.0047uF | 5% 630V |
| C270 | 1-136-161-00 | FILM | 0.047uF | 5% | 50V | C544 | 1-107-045-00 | MICA | 3.9PF | 500V |
| C271 | 1-110-341-11 | MYLAR | 330PF | 5% | 50V | < CONNECTOR > | | | | |
| C272 | 1-136-803-11 | FILM | 560PF | 5% | 630V | * CN1 | 1-537-473-11 | TERMINAL (LEAD PIN) | | |
| C273 | 1-107-169-00 | MICA | 100PF | 5% | 500V | * CN501 | 1-564-506-11 | PLUG, CONNECTOR 3P | | |
| C274 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V | * CN502 | 1-560-062-00 | PIN, CONNECTOR 4P | | |
| C275 | 1-162-211-31 | CERAMIC | 33PF | 5% | 50V | * CN503 | 1-564-508-11 | PLUG, CONNECTOR 5P | | |
| C276 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V | * CN504 | 1-564-519-11 | PLUG, CONNECTOR 4P | | |
| C278 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | * CN505 | 1-564-523-11 | PLUG, CONNECTOR 8P | | |
| C501 | 1-126-066-11 | ELECT | 470uF | 20% | 63V | * CN506 | 1-564-507-31 | PLUG, CONNECTOR 4P | | |
| C502 | 1-126-066-11 | ELECT | 470uF | 20% | 63V | * CN507 | 1-564-509-11 | PLUG, CONNECTOR 6P | | |
| C503 | 1-107-159-00 | MICA | 33PF | 5% | 500V | * CN508 | 1-560-062-00 | PIN, CONNECTOR 4P | | |
| C504 | 1-107-159-00 | MICA | 33PF | 5% | 500V | * CN509 | 1-560-061-00 | PIN, CONNECTOR 3P | | |
| C505 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | * CN510 | 1-564-337-51 | PIN, CONNECTOR 3P | | |
| C506 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V | * CN511 | 1-506-503-61 | PIN, CONNECTOR 9P | | |
| C507 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V | * CN512 | 1-506-503-11 | PIN, CONNECTOR 9P | | |
| C508 | 1-124-922-11 | ELECT | 1000uF | 20% | 63V | < COMPOSITION CIRCUIT BLOCK > | | | | |
| C509 | 1-124-922-11 | ELECT | 1000uF | 20% | 63V | CP103 | 1-236-087-11 | FILTER, LOW PASS | | |
| C510 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | CP203 | 1-236-087-11 | FILTER, LOW PASS | | |
| C511 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | < DIODE > | | | | |
| C513 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V | D101 | 8-719-987-63 | DIODE | 1N4148M | |
| C514 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V | D102 | 8-719-987-63 | DIODE | 1N4148M | |
| C515 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | D103 | 8-719-987-63 | DIODE | 1N4148M | |
| C516 | 1-124-902-00 | ELECT | 0.47uF | 20% | 50V | D104 | 8-719-987-63 | DIODE | 1N4148M | |
| C517 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | D105 | 8-719-987-63 | DIODE | 1N4148M | |
| C518 | 1-130-474-00 | MYLAR | 0.0018uF | 5% | 50V | D106 | 8-719-987-63 | DIODE | 1N4148M | |
| C519 | 1-130-474-00 | MYLAR | 0.0018uF | 5% | 50V | D107 | 8-719-000-54 | DIODE | UZL-6L3 | |
| C520 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | D108 | 8-719-987-63 | DIODE | 1N4148M | |
| C521 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V | D109 | 8-719-987-63 | DIODE | 1N4148M | |
| C522 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V | D201 | 8-719-987-63 | DIODE | 1N4148M | |
| C523 | 1-123-369-00 | ELECT | 4.7uF | 20% | 50V | D202 | 8-719-987-63 | DIODE | 1N4148M | |
| C526 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | D203 | 8-719-987-63 | DIODE | 1N4148M | |
| C527 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | D204 | 8-719-987-63 | DIODE | 1N4148M | |
| C528 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | | | | | |
| C529 | 1-126-059-11 | ELECT | 10uF | 20% | 50V | | | | | |

AUDIO**DOLBY S**

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------|------------|----------|----------|-------------|--|
| D205 | 8-719-987-63 | DIODE | 1N4148M | | | | < JACK > |
| D206 | 8-719-987-63 | DIODE | 1N4148M | | | | J501 1-507-796-71 JACK (HEADPHONES) |
| D207 | 8-719-000-54 | DIODE | UZL-6L3 | | | | * J502 1-573-142-41 JACK, PIN 4P (LINE IN/OUT) |
| D208 | 8-719-987-63 | DIODE | 1N4148M | | | | < COIL > |
| D209 | 8-719-987-63 | DIODE | 1N4148M | | | | L101 1-408-927-11 INDUCTOR 18mH |
| D501 | 8-719-933-41 | DIODE | HZS6C3L | | | | L102 1-408-920-00 INDUCTOR 4.7mH |
| D503 | 8-719-987-63 | DIODE | 1N4148M | | | | L103 1-408-918-11 INDUCTOR 3.3mH |
| D504 | 8-719-987-63 | DIODE | 1N4148M | | | | L104 1-408-916-11 INDUCTOR 2.2mH |
| D505 | 8-719-987-63 | DIODE | 1N4148M | | | | L105 1-408-929-00 INDUCTOR 27mH |
| D506 | 8-719-987-63 | DIODE | 1N4148M | | | | L106 1-410-769-31 INDUCTOR 3.3mH |
| D507 | 8-719-987-63 | DIODE | 1N4148M | | | | L201 1-408-927-11 INDUCTOR 18mH |
| D508 | 8-719-987-63 | DIODE | 1N4148M | | | | L202 1-408-920-00 INDUCTOR 4.7mH |
| D509 | 8-719-987-63 | DIODE | 1N4148M | | | | L203 1-408-918-11 INDUCTOR 3.3mH |
| D510 | 8-719-987-63 | DIODE | 1N4148M | | | | L204 1-408-916-11 INDUCTOR 2.2mH |
| D511 | 8-719-987-63 | DIODE | 1N4148M | | | | L205 1-408-929-00 INDUCTOR 27mH |
| D512 | 8-719-987-63 | DIODE | 1N4148M | | | | L206 1-410-769-31 INDUCTOR 3.3mH |
| D513 | 8-719-987-63 | DIODE | 1N4148M | | | | < PILOT LAMP > |
| D514 | 8-719-987-63 | DIODE | 1N4148M | | | | PL501 1-518-471-31 LAMP, PILOT |
| D515 | 8-719-987-63 | DIODE | 1N4148M | | | | PL502 1-518-471-31 LAMP, PILOT |
| D516 | 8-719-987-63 | DIODE | 1N4148M | | | | < IC LINK > |
| D517 | 8-719-987-63 | DIODE | 1N4148M | | | | △PS501 1-532-605-00 LINK, IC 0.4A |
| D518 | 8-719-987-63 | DIODE | 1N4148M | | | | △PS502 1-532-605-00 LINK, IC 0.4A |
| D519 | 8-719-987-63 | DIODE | 1N4148M | | | | △PS503 1-532-605-00 LINK, IC 0.4A |
| D520 | 8-719-987-63 | DIODE | 1N4148M | | | | △PS504 1-532-605-00 LINK, IC 0.4A |
| D521 | 8-719-987-63 | DIODE | 1N4148M | | | | < TRANSISTOR > |
| D522 | 8-719-987-63 | DIODE | 1N4148M | | | | Q101 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| D523 | 8-719-987-63 | DIODE | 1N4148M | | | | Q102 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| D524 | 8-719-987-63 | DIODE | 1N4148M | | | | Q103 8-729-203-06 TRANSISTOR 2SK30A-GR2 |
| D525 | 8-719-987-63 | DIODE | 1N4148M | | | | Q104 8-729-203-06 TRANSISTOR 2SK30A-GR2 |
| D526 | 8-719-987-63 | DIODE | 1N4148M | | | | Q105 8-729-203-06 TRANSISTOR 2SK30A-GR2 |
| < IC > | | | | | | | |
| IC1 | 8-752-056-51 | IC | CXA1417Q | | | | Q106 8-729-203-06 TRANSISTOR 2SK30A-GR2 |
| IC2 | 8-759-711-85 | IC | NJM4580E-D | | | | Q107 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC501 | 8-759-602-01 | IC | M5220P | | | | Q108 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC502 | 8-752-018-80 | IC | CX20188 | | | | Q109 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC503 | 8-759-710-59 | IC | NJM4580D-D | | | | Q110 8-729-203-06 TRANSISTOR 2SK30A-GR2 |
| IC506 | 8-759-145-58 | IC | uPC4558C | | | | Q111 8-729-203-06 TRANSISTOR 2SK30A-GR2 |
| IC507 | 8-759-634-50 | IC | M5218AL | | | | Q112 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC508 | 8-759-634-51 | IC | M5218AP | | | | Q113 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC509 | 8-759-145-58 | IC | uPC4558C | | | | Q114 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC510 | 8-759-710-59 | IC | NJM4580D-D | | | | Q115 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC511 | 8-752-018-80 | IC | CX20188 | | | | Q116 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC513 | 8-759-710-59 | IC | NJM4580D-D | | | | Q117 8-729-900-80 TRANSISTOR DTC114ES |
| IC514 | 8-759-106-56 | IC | uPC1297CA | | | | Q201 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC516 | 8-759-145-58 | IC | uPC4558C | | | | Q202 8-729-922-37 TRANSISTOR 2SD2144S-UW |
| IC517 | 8-759-634-51 | IC | M5218AP | | | | |

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AUDIO**DOLBY S**

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|--------------|--------------|-------------|------------------|----------|--------------|-------------|------------------|
| Q203 | 8-729-203-06 | TRANSISTOR | 2SK30A-GR2 | R8 | 1-216-065-00 | METAL CHIP | 4.7K 5% 1/10W |
| Q204 | 8-729-203-06 | TRANSISTOR | 2SK30A-GR2 | R9 | 1-216-058-00 | METAL GLAZE | 2.4K 5% 1/10W |
| Q205 | 8-729-203-06 | TRANSISTOR | 2SK30A-GR2 | R10 | 1-216-654-11 | METAL CHIP | 1.3K 0.5% 1/10W |
| Q206 | 8-729-203-06 | TRANSISTOR | 2SK30A-GR2 | R11 | 1-216-013-00 | METAL CHIP | 33 5% 1/10W |
| Q207 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R12 | 1-216-017-00 | METAL CHIP | 47 5% 1/10W |
| Q208 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R13 | 1-216-051-00 | METAL CHIP | 1.2K 5% 1/10W |
| Q209 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R14 | 1-216-065-00 | METAL CHIP | 4.7K 5% 1/10W |
| Q210 | 8-729-203-06 | TRANSISTOR | 2SK30A-GR2 | R15 | 1-216-058-00 | METAL GLAZE | 2.4K 5% 1/10W |
| Q211 | 8-729-203-06 | TRANSISTOR | 2SK30A-GR2 | R16 | 1-216-013-00 | METAL CHIP | 33 5% 1/10W |
| Q212 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R17 | 1-216-017-00 | METAL CHIP | 47 5% 1/10W |
| Q213 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R18 | 1-216-055-00 | METAL CHIP | 1.8K 5% 1/10W |
| Q214 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R19 | 1-216-656-11 | METAL CHIP | 1.6K 0.5% 1/10W |
| Q215 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R20 | 1-216-668-11 | METAL CHIP | 5.1K 0.5% 1/10W |
| Q216 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R21 | 1-218-774-11 | METAL CHIP | 820K 0.50% 1/10W |
| Q217 | 8-729-900-80 | TRANSISTOR | DTC114ES | R22 | 1-216-655-11 | METAL CHIP | 1.5K 0.5% 1/10W |
| Q501 | 8-729-107-53 | TRANSISTOR | 2SC2275A-P | R23 | 1-216-678-11 | METAL CHIP | 13K 0.5% 1/10W |
| Q502 | 8-729-141-10 | TRANSISTOR | 2SA985A-QP | R24 | 1-216-673-11 | METAL CHIP | 8.2K 0.5% 1/10W |
| Q503 | 8-729-224-62 | TRANSISTOR | 2SK246-GR | R25 | 1-216-675-11 | METAL CHIP | 10K 0.5% 1/10W |
| Q504 | 8-729-224-62 | TRANSISTOR | 2SK246-GR | R26 | 1-216-676-11 | METAL CHIP | 11K 0.5% 1/10W |
| Q505 | 8-729-366-62 | TRANSISTOR | 2SD666-C | R27 | 1-216-668-11 | METAL CHIP | 5.1K 0.5% 1/10W |
| Q506 | 8-729-364-62 | TRANSISTOR | 2SB646-C | R28 | 1-216-697-11 | METAL CHIP | 82K 0.5% 1/10W |
| Q507 | 8-729-366-62 | TRANSISTOR | 2SD666-C | R29 | 1-216-668-11 | METAL CHIP | 5.1K 0.5% 1/10W |
| Q508 | 8-729-364-62 | TRANSISTOR | 2SB646-C | R30 | 1-216-660-11 | METAL CHIP | 2.4K 0.5% 1/10W |
| Q509 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R31 | 1-216-680-11 | METAL CHIP | 16K 0.5% 1/10W |
| Q510 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R32 | 1-216-685-11 | METAL CHIP | 27K 0.5% 1/10W |
| Q511 | 8-729-900-89 | TRANSISTOR | DTC144ES | R33 | 1-216-080-00 | METAL CHIP | 20K 5% 1/10W |
| Q514 | 8-729-900-89 | TRANSISTOR | DTC144ES | R34 | 1-216-684-11 | METAL CHIP | 24K 0.5% 1/10W |
| Q515 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R35 | 1-216-084-00 | METAL CHIP | 30K 5% 1/10W |
| Q516 | 8-729-922-37 | TRANSISTOR | 2SD2144S-UWW | R36 | 1-216-084-00 | METAL CHIP | 30K 5% 1/10W |
| Q519 | 8-729-900-61 | TRANSISTOR | DTA114ES | R37 | 1-216-074-00 | METAL CHIP | 11K 5% 1/10W |
| Q520 | 8-729-900-89 | TRANSISTOR | DTC144ES | R38 | 1-216-086-00 | METAL GLAZE | 36K 5% 1/10W |
| Q521 | 8-729-900-61 | TRANSISTOR | DTA114ES | R39 | 1-216-066-00 | METAL CHIP | 5.1K 5% 1/10W |
| Q522 | 8-729-900-80 | TRANSISTOR | DTC114ES | R40 | 1-216-084-00 | METAL CHIP | 30K 5% 1/10W |
| Q523 | 8-729-900-80 | TRANSISTOR | DTC114ES | R41 | 1-216-078-00 | METAL GLAZE | 16K 5% 1/10W |
| Q524 | 8-729-900-80 | TRANSISTOR | DTC114ES | R42 | 1-216-071-00 | METAL CHIP | 8.2K 5% 1/10W |
| Q525 | 8-729-900-80 | TRANSISTOR | DTC114ES | R43 | 1-216-081-00 | METAL CHIP | 22K 5% 1/10W |
| Q526 | 8-729-281-52 | TRANSISTOR | 2SC1815-Y | R44 | 1-216-689-11 | METAL CHIP | 39K 0.5% 1/10W |
| Q527 | 8-729-194-57 | TRANSISTOR | 2SC945-P | R45 | 1-216-689-11 | METAL CHIP | 39K 0.5% 1/10W |
| Q528 | 8-729-194-57 | TRANSISTOR | 2SC945-P | R51 | 1-216-669-11 | METAL CHIP | 5.6K 0.5% 1/10W |
| < RESISTOR > | | | | R52 | 1-216-663-11 | METAL CHIP | 3.3K 0.5% 1/10W |
| R1 | 1-216-013-00 | METAL CHIP | 33 5% 1/10W | R55 | 1-216-658-11 | METAL CHIP | 2K 0.5% 1/10W |
| R2 | 1-216-675-11 | METAL CHIP | 10K 0.5% 1/10W | R101 | 1-249-466-11 | CARBON | 56K 5% 1/4W |
| R3 | 1-216-681-11 | METAL CHIP | 18K 0.5% 1/10W | R102 | 1-249-531-11 | CARBON | 130 5% 1/4W |
| R4 | 1-218-774-11 | METAL CHIP | 820K 0.50% 1/10W | R103 | 1-247-146-00 | CARBON | 4.3K 5% 1/4W |
| R5 | 1-216-668-11 | METAL CHIP | 5.1K 0.5% 1/10W | R104 | 1-249-602-11 | CARBON | 120K 5% 1/4W |
| R6 | 1-216-656-11 | METAL CHIP | 1.6K 0.5% 1/10W | R105 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R7 | 1-216-657-11 | METAL CHIP | 1.8K 0.5% 1/10W | R106 | 1-247-717-11 | CARBON | 2.2K 5% 1/4W |
| | | | | R107 | 1-247-138-00 | CARBON | 2K 5% 1/4W |

AUDIO**DOLBY S**

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------|--------------|----------|--------------|-------------|--------------|
| R108 | 1-249-429-11 | CARBON | 10K 5% 1/4W | R157 | 1-247-725-11 | CARBON | 10K 5% 1/4W |
| R109 | 1-247-717-11 | CARBON | 2.2K 5% 1/4W | R158 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R110 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R159 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R111 | 1-247-710-11 | CARBON | 560 5% 1/4W | R160 | 1-259-500-11 | CARBON | 1M 5% 1/6W |
| R112 | 1-247-725-11 | CARBON | 10K 5% 1/4W | R161 | 1-247-710-11 | CARBON | 560 5% 1/4W |
| R113 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W | R162 | 1-249-462-11 | CARBON | 22K 5% 1/4W |
| R114 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W | R163 | 1-259-449-11 | CARBON | 7.5K 5% 1/6W |
| R115 | 1-259-500-11 | CARBON | 1M 5% 1/6W | R164 | 1-259-424-11 | CARBON | 680 5% 1/6W |
| R116 | 1-247-710-11 | CARBON | 560 5% 1/4W | R165 | 1-259-451-11 | CARBON | 9.1K 5% 1/6W |
| R117 | 1-249-462-11 | CARBON | 22K 5% 1/4W | R166 | 1-249-469-11 | CARBON | 100K 5% 1/4W |
| R118 | 1-259-449-11 | CARBON | 7.5K 5% 1/6W | R167 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R119 | 1-259-424-11 | CARBON | 680 5% 1/6W | R168 | 1-247-193-00 | CARBON | 22K 1% 1/4W |
| R120 | 1-259-451-11 | CARBON | 9.1K 5% 1/6W | R169 | 1-247-193-00 | CARBON | 22K 1% 1/4W |
| R121 | 1-249-429-11 | CARBON | 10K 5% 1/4W | R170 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R122 | 1-249-940-11 | CARBON | 5.1K 1% 1/4W | R171 | 1-249-941-11 | CARBON | 5.6K 1% 1/4W |
| R123 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W | R172 | 1-249-469-11 | CARBON | 100K 5% 1/4W |
| R124 | 1-249-949-11 | CARBON | 12K 1% 1/4W | R173 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R125 | 1-247-715-11 | CARBON | 1.5K 5% 1/4W | R174 | 1-247-152-00 | CARBON | 8.2K 5% 1/4W |
| R126 | 1-247-715-11 | CARBON | 1.5K 5% 1/4W | R175 | 1-247-725-11 | CARBON | 10K 5% 1/4W |
| R127 | 1-249-913-11 | CARBON | 390 1% 1/4W | R176 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R128 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R177 | 1-259-500-11 | CARBON | 1M 5% 1/6W |
| R129 | 1-247-716-11 | CARBON | 1.8K 5% 1/4W | R178 | 1-249-462-11 | CARBON | 22K 5% 1/4W |
| R130 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W | R179 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R131 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R180 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W |
| R132 | 1-247-725-11 | CARBON | 10K 5% 1/4W | R181 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W |
| R133 | 1-215-441-00 | METAL | 6.8K 1% 1/6W | R182 | 1-249-590-11 | CARBON | 39K 5% 1/4W |
| R134 | 1-215-465-00 | METAL | 68K 1% 1/6W | R183 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R135 | 1-215-448-00 | METAL | 13K 1% 1/6W | R184 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R136 | 1-215-471-00 | METAL | 120K 1% 1/6W | R185 | 1-249-556-11 | CARBON | 1.5K 5% 1/4W |
| R137 | 1-215-403-00 | METAL | 180 1% 1/6W | R186 | 1-249-598-11 | CARBON | 82K 5% 1/4W |
| R138 | 1-215-473-00 | METAL | 150K 1% 1/6W | R187 | 1-249-962-11 | CARBON | 43K 1% 1/4W |
| R139 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R188 | 1-247-702-11 | CARBON | 150 5% 1/4W |
| R140 | 1-249-433-11 | CARBON | 22K 5% 1/4W | R189 | 1-247-702-11 | CARBON | 150 5% 1/4W |
| R141 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R190 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W |
| R142 | 1-249-437-11 | CARBON | 47K 5% 1/4W | R191 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R143 | 1-249-427-11 | CARBON | 6.8K 5% 1/4W | R192 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R144 | 1-247-725-11 | CARBON | 10K 5% 1/4W | R193 | 1-247-700-11 | CARBON | 100 5% 1/4W |
| R145 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W | R194 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W |
| R146 | 1-249-462-11 | CARBON | 22K 5% 1/4W | R195 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R147 | 1-247-704-11 | CARBON | 220 5% 1/4W | R196 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R148 | 1-247-713-11 | CARBON | 1K 5% 1/4W | R197 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R149 | 1-249-461-11 | CARBON | 18K 5% 1/4W | R198 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R150 | 1-249-469-11 | CARBON | 100K 5% 1/4W | R199 | 1-247-718-11 | CARBON | 2.7K 5% 1/4W |
| R151 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W | R201 | 1-249-466-11 | CARBON | 56K 5% 1/4W |
| R152 | 1-247-720-11 | CARBON | 3.9K 5% 1/4W | R202 | 1-249-531-11 | CARBON | 130 5% 1/4W |
| R153 | 1-247-152-00 | CARBON | 7.5K 5% 1/4W | R203 | 1-247-146-00 | CARBON | 4.3K 5% 1/4W |
| R154 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R204 | 1-249-602-11 | CARBON | 120K 5% 1/4W |
| R155 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R205 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R156 | 1-247-128-00 | CARBON | 750 5% 1/4W | R206 | 1-247-717-11 | CARBON | 2.2K 5% 1/4W |

AUDIO**DOLBY S**

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------|--------------|----------|--------------|-------------|--------------|
| R207 | 1-247-138-00 | CARBON | 2K 5% 1/4W | R255 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R208 | 1-249-429-11 | CARBON | 10K 5% 1/4W | R256 | 1-247-128-00 | CARBON | 750 5% 1/4W |
| R209 | 1-247-717-11 | CARBON | 2.2K 5% 1/4W | R257 | 1-247-725-11 | CARBON | 10K 5% 1/4W |
| R210 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R258 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R211 | 1-247-710-11 | CARBON | 560 5% 1/4W | R259 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R212 | 1-247-725-11 | CARBON | 10K 5% 1/4W | R260 | 1-259-500-11 | CARBON | 1M 5% 1/6W |
| R213 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W | R261 | 1-247-710-11 | CARBON | 560 5% 1/4W |
| R214 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W | R262 | 1-249-462-11 | CARBON | 22K 5% 1/4W |
| R215 | 1-259-500-11 | CARBON | 1M 5% 1/6W | R263 | 1-259-449-11 | CARBON | 7.5K 5% 1/6W |
| R216 | 1-247-710-11 | CARBON | 560 5% 1/4W | R264 | 1-259-424-11 | CARBON | 680 5% 1/6W |
| R217 | 1-249-462-11 | CARBON | 22K 5% 1/4W | R265 | 1-259-451-11 | CARBON | 9.1K 5% 1/6W |
| R218 | 1-259-449-11 | CARBON | 7.5K 5% 1/6W | R266 | 1-249-469-11 | CARBON | 100K 5% 1/4W |
| R219 | 1-259-424-11 | CARBON | 680 5% 1/6W | R267 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R220 | 1-259-451-11 | CARBON | 9.1K 5% 1/6W | R268 | 1-247-193-00 | CARBON | 22K 1% 1/4W |
| R221 | 1-249-429-11 | CARBON | 10K 5% 1/4W | R269 | 1-247-193-00 | CARBON | 22K 1% 1/4W |
| R222 | 1-249-940-11 | CARBON | 5.1K 1% 1/4W | R270 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R223 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W | R271 | 1-249-941-11 | CARBON | 5.6K 1% 1/4W |
| R224 | 1-249-949-11 | CARBON | 12K 1% 1/4W | R272 | 1-249-469-11 | CARBON | 100K 5% 1/4W |
| R225 | 1-247-715-11 | CARBON | 1.5K 5% 1/4W | R273 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R226 | 1-247-715-11 | CARBON | 1.5K 5% 1/4W | R274 | 1-247-152-00 | CARBON | 8.2K 5% 1/4W |
| R227 | 1-249-913-11 | CARBON | 390 1% 1/4W | R275 | 1-247-725-11 | CARBON | 10K 5% 1/4W |
| R228 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R276 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R229 | 1-247-716-11 | CARBON | 1.8K 5% 1/4W | R277 | 1-259-500-11 | CARBON | 1M 5% 1/6W |
| R230 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W | R278 | 1-249-462-11 | CARBON | 22K 5% 1/4W |
| R231 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R279 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R232 | 1-247-725-11 | CARBON | 10K 5% 1/4W | R280 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W |
| R233 | 1-215-441-00 | METAL | 6.8K 1% 1/6W | R281 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W |
| R234 | 1-215-465-00 | METAL | 68K 1% 1/6W | R282 | 1-249-590-11 | CARBON | 39K 5% 1/4W |
| R235 | 1-215-448-00 | METAL | 13K 1% 1/6W | R283 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R236 | 1-215-471-00 | METAL | 120K 1% 1/6W | R284 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R237 | 1-215-403-00 | METAL | 180 1% 1/6W | R285 | 1-249-556-11 | CARBON | 1.5K 5% 1/4W |
| R238 | 1-215-473-00 | METAL | 150K 1% 1/6W | R286 | 1-249-598-11 | CARBON | 82K 5% 1/4W |
| R239 | 1-249-465-11 | CARBON | 47K 5% 1/4W | R287 | 1-249-962-11 | CARBON | 43K 1% 1/4W |
| R240 | 1-249-433-11 | CARBON | 22K 5% 1/4W | R288 | 1-247-702-11 | CARBON | 150 5% 1/4W |
| R241 | 1-249-417-11 | CARBON | 1K 5% 1/4W | R290 | 1-247-702-11 | CARBON | 150 5% 1/4W |
| R242 | 1-249-437-11 | CARBON | 47K 5% 1/4W | R291 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W |
| R243 | 1-249-427-11 | CARBON | 6.8K 5% 1/4W | R292 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R244 | 1-247-725-11 | CARBON | 10K 5% 1/4W | R293 | 1-247-700-11 | CARBON | 100 5% 1/4W |
| R245 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W | R294 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W |
| R246 | 1-249-462-11 | CARBON | 22K 5% 1/4W | R295 | 1-247-721-11 | CARBON | 4.7K 5% 1/4W |
| R247 | 1-247-704-11 | CARBON | 220 5% 1/4W | R296 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R248 | 1-247-713-11 | CARBON | 1K 5% 1/4W | R297 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R249 | 1-249-461-11 | CARBON | 18K 5% 1/4W | R298 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R250 | 1-249-469-11 | CARBON | 100K 5% 1/4W | R299 | 1-247-718-11 | CARBON | 2.7K 5% 1/4W |
| R251 | 1-247-723-11 | CARBON | 6.8K 5% 1/4W | R301 | 1-249-439-11 | CARBON | 68K 5% 1/4W |
| R252 | 1-247-720-11 | CARBON | 3.9K 5% 1/4W | R302 | 1-249-426-11 | CARBON | 5.6K 5% 1/4W |
| R253 | 1-247-152-00 | CARBON | 7.5K 5% 1/4W | R303 | 1-247-883-00 | CARBON | 150K 5% 1/4W |
| R254 | 1-249-465-11 | CARBON | 47K 5% 1/4W | ▲R304 | 1-212-857-00 | FUSIBLE | 10 5% 1/4W F |
| | | | | R307 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |

The components identified by mark ▲ or dotted line with mark. ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AUDIO**DOLBY S**

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------|--------------|
| R308 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R309 | 1-249-962-11 | CARBON | 43K 1% 1/4W |
| R310 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R401 | 1-249-439-11 | CARBON | 68K 5% 1/4W |
| R402 | 1-249-426-11 | CARBON | 5.6K 5% 1/4W |
| R403 | 1-247-883-00 | CARBON | 150K 5% 1/4W |
| △R404 | 1-212-857-00 | FUSIBLE | 10 5% 1/4W F |
| R407 | 1-247-719-11 | CARBON | 3.3K 5% 1/4W |
| R408 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R409 | 1-249-962-11 | CARBON | 43K 1% 1/4W |
| R410 | 1-249-465-11 | CARBON | 47K 5% 1/4W |
| R501 | 1-247-704-11 | CARBON | 220 5% 1/4W |
| R502 | 1-247-704-11 | CARBON | 220 5% 1/4W |
| R503 | 1-247-717-11 | CARBON | 2.2K 5% 1/4W |
| R504 | 1-247-717-11 | CARBON | 2.2K 5% 1/4W |
| R505 | 1-247-717-11 | CARBON | 2.2K 5% 1/4W |
| R507 | 1-247-706-11 | CARBON | 330 5% 1/4W |
| R508 | 1-249-926-11 | CARBON | 1.3K 5% 1/4W |
| R509 | 1-249-556-11 | CARBON | 1.5K 5% 1/4W |
| R510 | 1-249-556-11 | CARBON | 1.5K 5% 1/4W |
| R511 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R512 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R513 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R514 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R515 | 1-215-472-00 | METAL | 130K 1% 1/6W |
| R516 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R517 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R518 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R519 | 1-247-885-00 | CARBON | 180K 5% 1/4W |
| R520 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R521 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R522 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R523 | 1-249-432-11 | CARBON | 18K 5% 1/4W |
| R524 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R527 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R528 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W |
| R530 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R531 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R532 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R533 | 1-247-856-00 | CARBON | 11K 5% 1/4W |
| R534 | 1-249-397-11 | CARBON | 22 5% 1/4W |
| R535 | 1-249-406-11 | CARBON | 120 5% 1/4W |
| R536 | 1-247-856-00 | CARBON | 11K 5% 1/4W |
| R537 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R538 | 1-249-432-11 | CARBON | 18K 5% 1/4W |
| R539 | 1-249-397-11 | CARBON | 22 5% 1/4W |
| R540 | 1-249-406-11 | CARBON | 120 5% 1/4W |
| R541 | 1-249-432-11 | CARBON | 18K 5% 1/4W |

| Ref. No. | Part No. | Description | Remark |
|-----------------------|--------------|------------------|-----------------------|
| R542 | 1-247-887-00 | CARBON | 220K 5% 1/4W |
| R543 | 1-247-887-00 | CARBON | 220K 5% 1/4W |
| R544 | 1-249-407-11 | CARBON | 150 5% 1/4W |
| R547 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R548 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R549 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R550 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R551 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R552 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W |
| R553 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| R554 | 1-249-414-11 | CARBON | 560 5% 1/4W |
| R555 | 1-247-830-11 | CARBON | 910 5% 1/4W |
| R556 | 1-249-425-11 | CARBON | 4.7K 5% 1/4W |
| R557 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R558 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W |
| R560 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R561 | 1-249-427-11 | CARBON | 6.8K 5% 1/4W |
| R562 | 1-249-440-11 | CARBON | 82K 5% 1/4W |
| R563 | 1-249-440-11 | CARBON | 82K 5% 1/4W |
| △R564 | 1-212-853-00 | FUSIBLE | 6.8 5% 1/4W F |
| △R565 | 1-212-853-00 | FUSIBLE | 6.8 5% 1/4W F |
| R566 | 1-249-381-11 | CARBON | 1 5% 1/4W |
| R567 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R568 | 1-215-472-00 | METAL | 130K 1% 1/6W |
| R569 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R570 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| < VARIABLE RESISTOR > | | | |
| RV101 | 1-237-192-11 | RES, ADJ, CARBON | 5K |
| RV102 | 1-241-631-11 | RES, ADJ, CARBON | 22K |
| RV103 | 1-237-192-11 | RES, ADJ, CARBON | 5K |
| RV104 | 1-241-631-11 | RES, ADJ, CARBON | 22K |
| RV105 | 1-241-629-11 | RES, ADJ, CARBON | 4.7K |
| RV201 | 1-237-192-11 | RES, ADJ, CARBON | 5K |
| RV202 | 1-241-631-11 | RES, ADJ, CARBON | 22K |
| RV203 | 1-237-192-11 | RES, ADJ, CARBON | 5K |
| RV204 | 1-241-631-11 | RES, ADJ, CARBON | 22K |
| RV205 | 1-241-629-11 | RES, ADJ, CARBON | 4.7K |
| RV501 | 1-223-264-11 | RES, VAR, CARBON | 50K/50K (BALANCE) |
| RV502 | 1-223-265-11 | RES, VAR, CARBON | 20K/20K (REC LEVEL) |
| RV503 | 1-238-840-21 | RES, VAR, CARBON | 5K/5K (REC LEVEL CAL) |
| RV504 | 1-241-336-11 | RES, VAR, CARBON | 20K/20K (PHONE LEVEL) |
| RV505 | 1-238-019-11 | RES, ADJ, CARBON | 47K |
| RV506 | 1-241-629-11 | RES, ADJ, CARBON | 4.7K |
| RV507 | 1-238-009-11 | RES, ADJ, CARBON | 220 |
| RV508 | 1-238-009-11 | RES, ADJ, CARBON | 220 |

| | |
|--|--|
| The components identified by mark ▲ or dotted line with mark △ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
|--|--|

AUDIO**DOLBY S****CAPSTAN****COMPARATOR****MD**

| Ref. No. | Part No. | Description | Remark |
|------------|----------|-------------|--------|
| < SWITCH > | | | |

S501 1-692-375-11 SWITCH, PUSH (1 KEY) (DIRECT)
 S502 1-572-589-11 SWITCH, ROTARY (REC EQ CAL)

< TRANSFORMER >

T101 1-433-379-11 TRANSFORMER, BIAS OSCILLATOR
 T201 1-433-379-11 TRANSFORMER, BIAS OSCILLATOR
 T501 1-433-359-11 TRANSFORMER, BIAS OSCILLATION

< TERMINAL >

* TB501 4-942-204-01 PLATE, GROUND

< TEST PIN >

* TP501 1-564-506-11 PLUG, CONNECTOR 3P
 * TP502 1-564-506-11 PLUG, CONNECTOR 3P
 * TP503 1-564-505-41 PLUG, CONNECTOR 2P

A-2006-154-A CAPSTAN BOARD, COMPLETE

< CAPACITOR >

| | | | | |
|------|----------------------------|---------|-----|-----|
| C905 | 1-124-779-00 ELECT CHIP | 10uF | 20% | 16V |
| C906 | 1-135-091-00 TANTALUM CHIP | 1uF | 20% | 16V |
| C907 | 1-163-077-00 CERAMIC CHIP | 0.1uF | 10% | 25V |
| C908 | 1-163-077-00 CERAMIC CHIP | 0.1uF | 10% | 25V |
| C909 | 1-163-077-00 CERAMIC CHIP | 0.1uF | 10% | 25V |
| C910 | 1-163-205-00 CERAMIC CHIP | 0.001uF | 5% | 50V |
| C911 | 1-124-779-00 ELECT CHIP | 10uF | 20% | 16V |

< HOLE ELEMENT >

H901 8-719-403-79 DIODE OH009
 H902 8-719-403-79 DIODE OH009
 H903 8-719-403-79 DIODE OH009

< IC >

IC902 8-752-017-40 IC CX20174

< RESISTOR >

| | | | | |
|------|--------------------------|------|----|------|
| R907 | 1-216-242-00 METAL GLAZE | 68K | 5% | 1/8W |
| R908 | 1-216-246-00 METAL GLAZE | 100K | 5% | 1/8W |
| R909 | 1-216-246-00 METAL GLAZE | 100K | 5% | 1/8W |
| R910 | 1-216-238-00 METAL GLAZE | 47K | 5% | 1/8W |
| R911 | 1-216-182-00 METAL GLAZE | 220 | 5% | 1/8W |
| R912 | 1-216-182-00 METAL GLAZE | 220 | 5% | 1/8W |
| R913 | 1-216-150-00 METAL GLAZE | 10 | 5% | 1/8W |
| R914 | 1-216-150-00 METAL GLAZE | 10 | 5% | 1/8W |
| R915 | 1-216-150-00 METAL GLAZE | 10 | 5% | 1/8W |

| Ref. No. | Part No. | Description | Remark |
|---------------------------------|----------|-------------|--------|
| * 1-632-746-11 COMPARATOR BOARD | | | |

< CAPACITOR >

| | | | | |
|------|----------------------|---------|-----|-----|
| C951 | 1-136-157-00 FILM | 0.022uF | 5% | 50V |
| C952 | 1-124-282-00 ELECT | 22uF | 20% | 25V |
| C953 | 1-124-478-11 ELECT | 100uF | 20% | 25V |
| C954 | 1-124-477-11 ELECT | 47uF | 20% | 25V |
| C955 | 1-162-203-31 CERAMIC | 15PF | 5% | 50V |
| C956 | 1-162-203-31 CERAMIC | 15PF | 5% | 50V |
| C957 | 1-136-159-00 FILM | 0.033uF | 5% | 50V |

< CONNECTOR >

* CN951 1-564-718-11 PIN, CONNECTOR (SMALL TYPE) 2P
 * CN952 1-564-518-11 PLUG, CONNECTOR 3P

< IC >

| | | |
|-------|-----------------|----------|
| IC951 | 8-759-145-58 IC | uPC4558C |
| IC952 | 8-759-201-58 IC | TC9142P |

< RESISTOR >

| | | | | |
|------|---------------------|------|----|------|
| R951 | 1-249-413-11 CARBON | 470 | 5% | 1/4W |
| R952 | 1-249-413-11 CARBON | 470 | 5% | 1/4W |
| R953 | 1-247-881-00 CARBON | 120K | 5% | 1/4W |
| R954 | 1-247-881-00 CARBON | 120K | 5% | 1/4W |
| R955 | 1-249-429-11 CARBON | 10K | 5% | 1/4W |
| R956 | 1-249-417-11 CARBON | 1K | 5% | 1/4W |
| R957 | 1-249-417-11 CARBON | 1K | 5% | 1/4W |
| R958 | 1-247-891-00 CARBON | 330K | 5% | 1/4W |
| R959 | 1-247-901-11 CARBON | 820K | 5% | 1/4W |
| R960 | 1-249-441-11 CARBON | 100K | 5% | 1/4W |

< VIBRATOR >

X951 1-577-615-11 VIBRATOR, CRYSTAL 4.9046MHz

* 1-632-740-11 MD BOARD

3-356-631-01 HOLDER (SENSOR)

< CONNECTOR >

CN1001 1-506-615-11 PIN, CONNECTOR 9P
 CN1002 1-564-501-11 PIN, CONNECTOR 8P

< IC >

IC1001 8-749-920-97 DIODE GP2S22B
 IC1002 8-749-920-97 DIODE GP2S22B

MD REEL MOTOR SYSTEM CONTROL

| Ref. No. | Part No. | Description | Remark | | Ref. No. | Part No. | Description | Remark | | | |
|-------------------------------|--------------|--------------------------------|--------|-----|----------|----------|--------------|-------------------|---------|-----|------|
| < RESISTOR > | | | | | | | | | | | |
| R1001 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W | C601 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| R1002 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W | C602 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| < SWITCH > | | | | | | | | | | | |
| S1002 | 1-570-953-11 | SWITCH, PUSH (1 KEY) (DOOR) | | | | C603 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| S1003 | 1-571-958-11 | SWITCH, PUSH (1 KEY) (CLOSE) | | | | C604 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| S1004 | 1-572-126-11 | SWITCH, PUSH (1 KEY) (OPEN) | | | | C701 | 1-136-177-00 | FILM | 1uF | 5% | 50V |
| S1005 | 1-572-125-11 | SWITCH, LEAF (FWD TAB) | | | | C702 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| S1006 | 1-572-202-11 | SWITCH, LEAF (HALF) | | | | C703 | 1-104-644-11 | ELECT | 3300uF | 20% | 35 |
| S1007 | 1-572-125-11 | SWITCH, LEAF (METAL) | | | | C704 | 1-104-644-11 | ELECT | 3300uF | 20% | 35 |
| S1008 | 1-572-125-11 | SWITCH, LEAF (70u) | | | | C705 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| < TERMINAL > | | | | | | | | | | | |
| * TB1001 | 1-694-018-11 | TERMINAL (5P) | | | | C706 | 1-126-105-11 | ELECT | 1000uF | 20% | 35V |
| ***** | | | | | | | | | | | |
| * | 1-632-741-11 | REEL MOTOR BOARD | | | | C707 | 1-124-887-00 | ELECT | 3300uF | 20% | 16V |
| ***** | | | | | | | | | | | |
| < CAPACITOR > | | | | | | | | | | | |
| C1051 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | C708 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C1052 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | C709 | 1-124-471-00 | ELECT | 1000uF | 20% | 6.3V |
| C1053 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C710 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| < CONNECTOR > | | | | | | | | | | | |
| * CN1051 | 1-564-499-11 | PIN, CONNECTOR 6P | | | | C711 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| * CN1052 | 1-564-718-11 | PIN, CONNECTOR (SMALL TYPE) 2P | | | | C712 | 1-162-211-31 | CERAMIC | 33PF | 5% | 50V |
| * CN1053 | 1-564-718-11 | PIN, CONNECTOR (SMALL TYPE) 2P | | | | C713 | 1-124-473-11 | ELECT | 1000uF | 20% | 10V |
| < RESISTOR > | | | | | | | | | | | |
| R1051 | 1-249-412-11 | CARBON | 390 | 5% | 1/4W | C714 | 1-126-955-11 | ELECT | 4700uF | 20% | 35V |
| ***** | | | | | | | | | | | |
| * | A-2006-998-A | SYSTEM CONTROL BOARD, COMPLETE | | | | C715 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| ***** | | | | | | | | | | | |
| * | 1-533-213-11 | HOLDER, FUSE | | | | C716 | 1-124-556-11 | ELECT | 2200uF | 20% | 16V |
| * | 1-533-213-31 | HOLDER, FUSE | | | | C717 | 1-124-122-11 | ELECT | 100uF | 20% | 50V |
| * | 3-309-144-31 | HEAT SINK | | | | C718 | 1-124-477-11 | ELECT | 47uF | 20% | 25V |
| * | 9-911-844-XX | CUSHION | | | | C719 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| * | 3-356-925-01 | HEAT SINK | | | | C801 | 1-124-907-11 | ELECT | 10uF | 20% | 50V |
| * | 3-362-478-11 | HOLDER (T), LED | | | | C802 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| * | 3-385-607-01 | HOLDER, FL TUBE | | | | C803 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| * | 4-880-403-21 | HEAT SINK | | | | C804 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| * | 7-685-871-01 | SCREW +BVTT | 3X6 | (S) | | C805 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| < CAPACITOR > | | | | | | | | | | | |
| ▲C001 | 1-161-744-00 | CERAMIC | 0.01uF | | 400V | C806 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| < CONNECTOR > | | | | | | | | | | | |
| * CN001 | 1-580-230-31 | PIN, CONNECTOR (PC BOARD) 2P | | | | * CN807 | 1-124-477-11 | ELECT | 47uF | 20% | 25V |
| CN002 | 1-568-226-11 | PIN, CONNECTOR 2P | | | | C851 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| * CN701 | 1-564-506-11 | PLUG, CONNECTOR 3P | | | | C852 | 1-124-907-11 | ELECT | 10uF | 20% | 50V |
| * CN702 | 1-564-511-11 | PLUG, CONNECTOR 8P | | | | C853 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V |
| * CN801 | 1-564-339-51 | PIN, CONNECTOR 5P | | | | C854 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| < CONPOSITION CIRCUIT BLOCK > | | | | | | | | | | | |
| CP601 | 1-232-881-11 | COMPOSITION CIRCUIT BLOCK | | | | * CN802 | 1-506-503-11 | PIN, CONNECTOR 9P | | | |
| CP602 | 1-236-985-11 | COMPOSITION CIRCUIT BLOCK | | | | * CN803 | 1-564-341-51 | PIN, CONNECTOR 7P | | | |
| CP801 | 1-236-984-11 | COMPOSITION CIRCUIT BLOCK | | | | | | | | | |

The components identified by mark ▲ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SYSTEM CONTROL

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|--------------------------------|--------------|-----------------------------|--------|----------|--------------|------------------------|-------------|
| < DIODE > | | | | | | | |
| D601 | 8-719-301-44 | LED SEL2410E-D (►) | | Q601 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| D602 | 8-719-301-61 | LED SEL2910A-D (II) | | Q602 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| D603 | 8-719-301-39 | LED SEL2210S-D (●) | | Q603 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| D604 | 8-719-987-63 | DIODE 1N4148M | | Q604 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| D605 | 8-719-987-63 | DIODE 1N4148M | | Q605 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| D606 | 8-719-987-63 | DIODE 1N4148M | | Q606 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| D607 | 8-719-987-63 | DIODE 1N4148M | | Q607 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D701 | 8-719-230-02 | DIODE 30DF2 | | Q608 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D702 | 8-719-230-02 | DIODE 30DF2 | | Q609 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D703 | 8-719-230-02 | DIODE 30DF2 | | Q610 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D704 | 8-719-230-02 | DIODE 30DF2 | | Q611 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D705 | 8-719-200-77 | DIODE 10E2N | | Q612 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D706 | 8-719-200-77 | DIODE 10E2N | | Q613 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| D707 | 8-719-200-77 | DIODE 10E2N | | Q614 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D708 | 8-719-200-77 | DIODE 10E2N | | Q701 | 8-729-209-15 | TRANSISTOR 2SD2012 | |
| D709 | 8-719-200-77 | DIODE 10E2N | | Q702 | 8-729-209-15 | TRANSISTOR 2SD2012 | |
| D710 | 8-719-987-63 | DIODE 1N4148M | | Q703 | 8-729-209-15 | TRANSISTOR 2SD2012 | |
| D711 | 8-719-933-41 | DIODE HZS6C3L | | Q704 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| D712 | 8-719-933-41 | DIODE HZS6C3L | | Q705 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| D713 | 8-719-200-77 | DIODE 10E2N | | Q706 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| D714 | 8-719-001-79 | DIODE UZL-12H1 | | Q707 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| D715 | 8-719-200-77 | DIODE 10E2N | | Q708 | 8-729-140-04 | TRANSISTOR 2SB1116A-L | |
| D716 | 8-719-200-77 | DIODE 10E2N | | Q709 | 8-729-141-32 | TRANSISTOR 2SA1409-LK | |
| D717 | 8-719-933-41 | DIODE HZS6C3L | | Q801 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| D801 | 8-719-200-77 | DIODE 10E2N | | Q802 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| D802 | 8-719-987-63 | DIODE 1N4148M | | Q803 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| D803 | 8-719-987-63 | DIODE 1N4148M | | Q804 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| D804 | 8-719-987-63 | DIODE 1N4148M | | Q805 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| D851 | 8-719-987-63 | DIODE 1N4148M | | Q806 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D852 | 8-719-987-63 | DIODE 1N4148M | | Q807 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D853 | 8-719-987-63 | DIODE 1N4148M | | Q808 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D854 | 8-719-987-63 | DIODE 1N4148M | | Q809 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D855 | 8-719-987-63 | DIODE 1N4148M | | Q810 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D856 | 8-719-987-63 | DIODE 1N4148M | | Q811 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| D857 | 8-719-987-63 | DIODE 1N4148M | | Q812 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D858 | 8-719-987-63 | DIODE 1N4148M | | Q813 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| D859 | 8-719-987-63 | DIODE 1N4148M | | Q814 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| < FLUORESCENT INDICATOR TUBE > | | | | | | | |
| FLT601 | 1-517-139-11 | INDICATOR TUBE, FLUORESCENT | | Q815 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| < IC > | | | | | | | |
| IC601 | 8-759-635-68 | IC M50940-313SP | | Q851 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| IC801 | 8-759-635-69 | IC M50964-226SP | | Q852 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| IC802 | 8-759-973-95 | IC BA6219B | | Q854 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| IC803 | 8-759-822-09 | IC LB1641 | | | | | |
| IC851 | 8-741-100-48 | IC SBX1610-59 | | | | | |
| < RESISTOR > | | | | | | | |
| R601 | 1-249-429-11 | CARBON | | R601 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R602 | 1-249-429-11 | CARBON | | R602 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R603 | 1-249-437-11 | CARBON | | R603 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R604 | 1-247-903-00 | CARBON | | R604 | 1-247-903-00 | CARBON | 1M 5% 1/4W |

SYSTEM CONTROL

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|---------------|--------------|-------------|---------------|-----------------------|--------------|---------------------------------|---------------|
| R605 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R815 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R606 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R816 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R607 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R817 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R608 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R818 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R609 | 1-249-429-11 | CARBON | 10K 5% 1/4W | R819 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R610 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W | R820 | 1-249-436-11 | CARBON | 39K 5% 1/4W |
| R611 | 1-249-422-11 | CARBON | 2. 7K 5% 1/4W | R821 | 1-249-436-11 | CARBON | 39K 5% 1/4W |
| R612 | 1-249-424-11 | CARBON | 3. 9K 5% 1/4W | R822 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R613 | 1-249-428-11 | CARBON | 8. 2K 5% 1/4W | R823 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R614 | 1-249-434-11 | CARBON | 27K 5% 1/4W | R824 | 1-249-426-11 | CARBON | 5. 6K 5% 1/4W |
| R615 | 1-249-422-11 | CARBON | 2. 7K 5% 1/4W | R825 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R616 | 1-249-424-11 | CARBON | 3. 9K 5% 1/4W | R826 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R617 | 1-249-428-11 | CARBON | 8. 2K 5% 1/4W | R827 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R618 | 1-249-434-11 | CARBON | 27K 5% 1/4W | R828 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W |
| R619 | 1-249-431-11 | CARBON | 15K 5% 1/4W | R829 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W |
| R620 | 1-249-434-11 | CARBON | 27K 5% 1/4W | R830 | 1-249-484-11 | CARBON | 6. 8 5% 1/2W |
| R621 | 1-249-409-11 | CARBON | 220 5% 1/4W | R831 | 1-249-427-11 | CARBON | 6. 8K 5% 1/4W |
| R622 | 1-249-410-11 | CARBON | 270 5% 1/4W | R832 | 1-249-428-11 | CARBON | 8. 2K 5% 1/4W |
| R623 | 1-249-412-11 | CARBON | 390 5% 1/4W | R833 | 1-249-428-11 | CARBON | 8. 2K 5% 1/4W |
| A R701 | 1-212-863-00 | FUSIBLE | 18 5% 1/4W F | R834 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W |
| R702 | 1-247-752-11 | CARBON | 1K 5% 1/2W | R835 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W |
| R703 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W | R836 | 1-249-484-11 | CARBON | 6. 8 5% 1/2W |
| R704 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R837 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R705 | 1-249-437-11 | CARBON | 47K 5% 1/4W | R851 | 1-249-431-11 | CARBON | 15K 5% 1/4W |
| R706 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W | R852 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R707 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R853 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R708 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R854 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R709 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R855 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R710 | 1-249-427-11 | CARBON | 6. 8K 5% 1/4W | R856 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R711 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W | R857 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R712 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | R859 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R713 | 1-249-431-11 | CARBON | 15K 5% 1/4W | R860 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R714 | 1-249-429-11 | CARBON | 10K 5% 1/4W | < VARIABLE RESISTOR > | | | |
| R715 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W | RV801 | 1-241-629-11 | RES, ADJ, CARBON 4. 7K | |
| R716 | 1-249-437-11 | CARBON | 47K 5% 1/4W | RV851 | 1-223-266-11 | RES, VAR, CARBON 10K (BIAS-CAL) | |
| R801 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W | < SWITCH > | | | |
| R802 | 1-249-417-11 | CARBON | 1K 5% 1/4W | △S001 | 1-572-267-51 | SWITCH, PUSH (AC POWER) (1 KEY) | |
| R803 | 1-249-435-11 | CARBON | 33K 5% 1/4W | S601 | 1-554-303-21 | SWITCH, TACTILE (MEMORY) | |
| R804 | 1-249-437-11 | CARBON | 47K 5% 1/4W | S602 | 1-554-303-21 | SWITCH, TACTILE (RESET) | |
| R805 | 1-249-440-11 | CARBON | 82K 5% 1/4W | S603 | 1-554-303-21 | SWITCH, TACTILE (▲) | |
| R806 | 1-249-413-11 | CARBON | 470 5% 1/4W | S604 | 1-554-303-21 | SWITCH, TACTILE (■) | |
| R807 | 1-247-903-00 | CARBON | 1M 5% 1/4W | S605 | 1-554-303-21 | SWITCH, TACTILE (◀) | |
| R808 | 1-249-429-11 | CARBON | 10K 5% 1/4W | S606 | 1-554-303-21 | SWITCH, TACTILE (▶) | |
| R810 | 1-249-437-11 | CARBON | 47K 5% 1/4W | S607 | 1-554-303-21 | SWITCH, TACTILE (●) | |
| R811 | 1-249-437-11 | CARBON | 47K 5% 1/4W | S608 | 1-554-303-21 | SWITCH, TACTILE (►) | |
| R812 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | S609 | 1-554-303-21 | SWITCH, TACTILE (■) | |
| R813 | 1-249-421-11 | CARBON | 2. 2K 5% 1/4W | | | | |
| R814 | 1-249-429-11 | CARBON | 10K 5% 1/4W | | | | |

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|--|---|
| The components identified by mark A or dotted line with mark A are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
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SYSTEM CONTROL

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|------------------------------------|--------|
| S610 | 1-554-303-21 | SWITCH, TACTILE (KK) | |
| S611 | 1-554-303-21 | SWITCH, TACTILE (P&P) | |
| S612 | 1-554-303-21 | SWITCH, TACTILE (O) | |
| S613 | 1-571-520-11 | SWITCH, SLIDE (TIMER) | |
| S851 | 1-554-303-21 | SWITCH, TACTILE (MONITOR) | |
| S852 | 1-692-368-11 | SWITCH, ROTARY (DOLBY NR) | |
| S853 | 1-692-376-11 | SWITCH, PUSH (1 KEY) (CALIBRATION) | |
| S854 | 1-692-376-11 | SWITCH, PUSH (1 KEY) (MPX FILTER) | |
| S855 | 1-692-376-11 | SWITCH, PUSH (1 KEY) (HX PRO) | |

< TERMINAL >

* TB701 4-942-204-01 PLATE, GROUND

< TEST PIN >

* TP801 1-564-506-11 PLUG, CONNECTOR 3P

< VIBRATOR >

| | | |
|------|--------------|------------------------|
| X601 | 1-577-358-21 | VIBRATOR, CERAMIC 4MHz |
| X801 | 1-577-358-21 | VIBRATOR, CERAMIC 4MHz |

MISCELLANEOUS

| | | |
|-------|--------------|-----------------------------|
| △S002 | 1-692-155-11 | SELECTOR, POWER VOLTAGE (E) |
| * 53 | 1-590-321-61 | LEAD (WITH CONNECTOR) |
| △57 | 1-558-568-21 | CORD, POWER (AEP, G) |
| △57 | 1-559-583-21 | CORD, POWER (US, CND) |
| △57 | 1-696-027-11 | CORD, POWER (E) |

| | | |
|-------|--------------|---|
| 116 | 8-719-980-85 | DIODE (SLF325C) |
| * 147 | 1-608-268-00 | PC BOARD, ERASE HEAD |
| 158 | 1-632-779-11 | PC BOARD, FG |
| △F701 | 1-532-285-00 | FUSE, TIME-LAG (1.25A/250V) (AEP, G, E) |
| △F701 | 1-532-741-11 | FUSE, GLASS TUBE (1.25A/125V) (US, CND) |

| | | |
|--------|--------------|-------------------------|
| HE501 | 1-543-836-11 | HEAD, MAGNETIC (ERASE) |
| HRP501 | 1-543-684-21 | HEAD, MAGNETIC (REC/PB) |
| M1001 | X-3356-638-1 | MOTOR (REEL R) ASSY |
| M1002 | X-3356-604-1 | MOTOR (ASSIST) ASSY |
| S1001 | 1-466-238-11 | ENCODER, ROTARY |

| | | |
|-------|--------------|------------------------------|
| △T901 | 1-423-684-11 | TRANSFORMER, POWER (US, CND) |
| △T901 | 1-423-685-11 | TRANSFORMER, POWER (AEP, G) |
| △T901 | 1-423-686-11 | TRANSFORMER, POWER (E) |

ACCESSORIES & PACKING MATERIALS

| | |
|--------------|----------------------------------|
| 1-465-314-11 | REMOTE COMMANDER (RM-J701) (E) |
| 1-558-271-11 | CORD, CONNECTION |
| 1-569-007-11 | ADAPTER, CONVERSION 2P (E) |
| 2-181-754-01 | COVER, BATTERY (FOR RM-J701) (E) |

| Ref. No. | Part No. | Description | Remark |
|----------|--------------|--|--------|
| | 3-704-366-01 | SCREW (CASE) (M3X8) | |
| * | 3-354-919-61 | INDIVIDUAL CARTON | |
| * | 3-366-547-01 | CUSHION | |
| | 3-756-186-11 | MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (CND, AEP, E) | |
| | 3-756-186-21 | MANUAL, INSTRUCTION (ENGLISH) (US) | |
| | 3-756-186-41 | MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP) | |
| | 3-756-186-51 | MANUAL, INSTRUCTION (GERMAN) (G) | |

HARDWARE LIST

| | | | |
|-----|--------------|-------------------------------|--|
| #1 | 7-685-871-01 | SCREW +BVTT 3X6 (S) | |
| #2 | 7-682-547-09 | SCREW +BV 3X6, S TIGHT | |
| #3 | 7-685-133-19 | SCREW +BTP 2.6X6 TYPE2 N-S | |
| #4 | 7-682-147-15 | SCREW, TR | |
| #5 | 7-682-548-09 | SCREW +BVTT 3X8 (S) | |
| #6 | 7-621-849-00 | SCREW (BV/RING) | |
| #7 | 7-621-775-10 | SCREW +B 2.6X4 | |
| #8 | 7-628-253-00 | SCREW +PS 2X4 | |
| #9 | 7-621-255-20 | SCREW +BVTT 2X4 (S) | |
| #10 | 7-621-772-10 | SCREW +B 2X4 | |
| #11 | 7-671-154-01 | STENLESS BALL | |
| #12 | 7-685-870-01 | SCREW +BVTT 3X5 (S) | |
| #13 | 7-621-772-70 | SCREW +B 2X14 | |
| #14 | 7-622-205-05 | NUT M2 TYPE2 | |
| #15 | 7-628-254-10 | SCREW +PS 2.6X6 | |
| #16 | 7-682-648-09 | SCREW +PS 3X8 | |
| #17 | 7-621-255-35 | SCREW +BVTT 2X5 (S) | |
| #18 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S (E) | |

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TC-K909ES

SONY SERVICE MANUAL

*US Model
Canadian Model
AEP Model
E Model*

SUPPLEMENT-1

File this supplement with the service manual.

Subject : TC-K909ES US model disuse the side panel.

• Difference Parts

| Page | Ref.No. | Part No. | Description |
|------|---------|----------------|---------------------------------|
| 42 | 16 | 3-704-366-01 | SCREW (CASE) (K909ES : US) |
| 58 | - | 3-363-900-01 | CUSHION (K909ES : US) |
| 58 | - | * 3-376-746-31 | INDIVIDUAL CARTON (K909ES : US) |